U.S. POSTAL SERVICE

National Change of Address

License Agreement

THIS AGREEMENT is made between: «	Licensee»,
a	, having its principal place of business at
«Address», «CSZ»,	
and the United States Postal Service (US Officer.	PS/Licensor) through the undersigned Contracting

WHEREAS, Licensor represents that it is the sole owner of copyrights in and to various editions of the work contained in the Postal Service National Change of Address (NCOA) File tape and the information contained therein, and that it will be the sole owner of copyrights in subsequent revisions thereof: and.

WHEREAS, Licensee wishes to acquire a nonexclusive license to reproduce and use the Postal Service National Change of Address File tape to provide standardized name and address matching services to commercial customers.

NOW, THEREFORE, in consideration of the grant and mutual agreements set forth below, the parties agree as follows:

- GRANT OF RIGHTS. Subject to the terms and conditions of this agreement, Licensor hereby grants to Licensee during the term of this agreement, a nonexclusive license to reproduce and use the Postal Service National Change of Address File tape to provide standardized name and address matching services to commercial customers in accordance with the current Licensee Performance Requirements.
- 1.1 The sole purpose of this license and of the above standardized name and address matching services is to provide a mailing list correction service for lists that will be used for the preparation of mailings. Information obtained or derived from the NCOA File or service shall NOT be used by the Licensee, either on its own behalf or knowingly for its customers, for the purpose of creating or maintaining "new movers" lists.

As with the NCOA File itself, no proprietary Licensee list, which contains both old and corresponding new address records (or service product or system of lists that can be used to link old and corresponding new address records), if it is updated by use of the NCOA File, shall be rented or sold or otherwise provided, in whole or in part, to Licensee customers or anyone else.

2. FEE. The license fee for each year of this agreement shall be \$125,000 per year. The fee represents the Postal Service's best estimate of its costs of providing the service required by this agreement to licensee. After the initial 3 years, the yearly fee will be adjusted to reflect the current cost of providing service. Said fee shall be due and payable as indicated in Paragraph 3, below. The licensee may provide service from multiple system platforms at an additional annual fee of 50% of the current annual license fee per additional platform, regardless of where the additional platform(s) is (are) located. (Examples: If the same platform, or any variations of an approved platform, is located at three sites, for example, then the current annual fee plus two additional 50% annual fees will be due the Licensor. If three platforms are located at one site, then the current annual fee plus two additional 50% annual fees will be due the Licensor.) Additional platforms shall not be used without prior audit and approval by the Licensor.

The annual fee may be adjusted to reflect the current Licensor cost of providing system support and auditing service. The Licensor shall, on an as needed basis, recover any extraordinary costs that may occur as a result of providing this service to the licensees as a whole. These costs shall be distributed among all active licensees equally. All fees shall be due and payable as indicated in Paragraph 3 below.

The Licensor may perform NCOA process quality reviews (process audits) as frequently as it determines necessary. To ensure the integrity of the NCOA service, Licensees shall be prepared to demonstrate their system performance and pass at least three NCOA process reviews to be conducted on or offsite each year. If the Licensor has to perform audits referenced in Paragraph 9 of this agreement and Section 7.0 of the Licensee Performance Requirements due to Licensee's failure to comply with the requirements, in excess of the level of activity that is recovered in the license fee (three audits per year per system platform), then the Licensee shall reimburse the Licensor for each additional audit. The amount of the non-refundable failure-related reimbursement shall be \$2,000 for each additional audit. These reimbursement fees shall be payable fourteen (14) calendar days after the fourth and each subsequent audit activities for any given contract year.

3. TERM OF AGREEMENT. The term of this agreement shall be for one (1) year from the date of execution, plus any extensions made pursuant to this paragraph 3. Each year the Licensee shall have the option to extend the term of the agreement for an additional year by payment to the Postal Service of the required annual royalty fee (See FEE, above) no less than thirty (30) calendar days prior to the expiration of the agreement. The term of the agreement, as extended on an annual basis, shall not exceed ten (10) years. Upon notification of the intent of the Licensee to extend the agreement and payment of the required royalty, the Licensor shall prepare a modification extending the agreement for execution by the parties. Notwithstanding the terms set forth herein, this agreement may be canceled at any time by Licensor upon sixty (60) calendar days' notice. Upon cancellation by Licensor, Licensee shall cease advertising of matching services using the licensed materials within thirty (30) calendar days of receiving the notice of cancellation. Monies received for orders not filled within the thirty-day period shall be promptly refunded to the customer. In the event of cancellation, Licensor's liability shall be limited to refund to Licensee of a pro-rata portion of the annual royalty fee based on the effective date of cancellation within thirty (30) calendar days of the date of cancellation.

- 4. FURNISHING OF FILE. Licensor shall provide Licensee copyrighted National Change of Address File information as described in the current National Change of Address File Licensee Performance Requirements.
- 5. LIMITATION OF LIABILITY. The Postal Service makes no warranty or representation, either express or implied, with respect to the NCOA file tape, including its correctness, quality, performance, merchantability, or fitness for a particular purpose.
 - The Postal Service will not be liable for direct, indirect, special, incidental, consequential, or other similar damages arising out of use or inability to use the file tape, even if advised of the possibility of such damages.
- 6. INDEMNITY. Licensor agrees to indemnify Licensee for infringement of any U.S. copyright, trademark or service mark owned by Licensor and used by Licensee pursuant to this agreement. The foregoing indemnity shall not apply unless the Licensor shall have been informed as soon as practicable by the Licensee of the suit or action alleging such infringement and shall have been given such opportunity as is afforded by applicable laws, rules, or regulations to participate in the defense thereof.
- 7. ADVERTISING. The following specific provisions shall apply to Licensee's advertising of the licensed products. These provisions are not exclusive, and Licensor may impose additional requirements which, in its sole discretion, it finds necessary.
 - a. The words "Nonexclusive Licensee of the United States Postal Service" shall appear once, and not more than once in each advertisement.
 - b. Each reference in an advertisement to the copyright owned by Licensor must be accompanied by an acknowledgement of Licensor's ownership in the form: "© USPS 20__." Licensee may not use any trademark or service mark of the U.S. Postal Service without its express written permission. If such authorization is obtained, the mark must be identified as that of the Postal Service, e.g., "® USPS."
 - c. Licensee shall not suggest by any business or trade name any association with Licensor or the United States Government.
 - d. Licensee shall not employ in its advertising or in person marketing any language, mode of dress, or other representation or sales technique from which a prospective purchaser might infer that Licensee or its agent is an employee or representative of Licensor.
 - e. Licensee's advertising shall direct that checks, money orders, etc., sent in payment for the matching service, be made payable to Licensee's trade name.
 - f. Licensee's advertising shall clearly and conspicuously state that the price at which the matching services are being offered by Licensee is neither established, controlled nor approved by the U.S. Postal Service.
- 8. APPROVAL OF ADVERTISING AND METHOD OF SALE. In order to assure that prospective purchasers are not misled by any aspect of the advertising and the method

of sale of NCOA matching services, and specifically to assure that the relationship between the Licensee and Licensor is correctly represented, Licensor shall review Licensee's proposed methods of sale and proposed advertising. (For the purposes of this paragraph, advertising means Licensee's public disclosures concerning a product, including but not limited to proposed copy for news releases, radio, television, magazine and newspaper advertisements, and direct mail solicitations.) Licensee shall not publish or distribute any advertising or engage in any method of sale which has not been approved by Licensor. The granting or withholding of approval shall be at the sole discretion of the Licensor. Licensor shall within twenty (20) working days of receipt of proposed advertising or a proposed method of sale, approve it in writing or provide a written statement of the reasons for disapproval and, at its discretion, a statement of the changes necessary for approval. Licensor's failure to respond within twenty (20) working days shall be deemed approval of a proposed product.

9. PRIVACY ACT. The NCOA file is a system of records as defined in subsection (a) (5) of the Privacy Act of 1974, 5 United States Code 552a (the "Act"), and is subject to the provisions of the Act. In accordance with subsection (m) (1) of the Act, the Licensee shall fully comply with the requirements of the Act while the information is in the Licensee's custody. Included among these requirements are: (1) The prohibition against the disclosure or use of the information for any purpose other than to correct addresses on pre-existing address lists; (2) Maintenance of an accurate accounting of all disclosures of the information in accordance with subsection (c) of the Act; and (3) Provision of rules of conduct and instruction for employees and institution of procedural and physical safeguards to ensure the security of the information in accordance with subsections (e)(9) and (e)(10) of the Act. The Licensee and its employees are subject to the criminal penalties set out in subsection (i)(1) of the Act for any willful disclosure prohibited by the Act.

The Licensee shall indemnify Licensor for any action arising from the unlawful use of disclosure of the NCOA file information by the Licensee or its employees. The Licensor may perform impromptu audits to prevent unauthorized access, disclosure, or misuse of the file as well as assure that all performance requirements are met.

10. TERMINATION FOR CAUSE.

- a. If Licensee at any time during the term of this agreement shall fail to comply with or fulfill any of the terms or conditions thereof, Licensor may, at its discretion, terminate the agreement for cause by sending Licensee a notice of termination. The notice shall state the reasons for the termination and shall provide Licensee with a period of thirty (30) calendar days to cure all defects and avoid termination. Said termination shall be without liability to the Licensor.
- b. Licensee shall, upon the termination date, cease advertising, selling and filling orders for the matching services using the Postal Service National Change of Address File tape. Monies received for orders not yet filled as of the termination date shall be refunded to purchaser within fifteen (15) business days of receipt.
- c. At the sole discretion of the Contracting Officer or his designees, the Licensor may as an interim measure, send the Licensee a suspension directive. A suspension directive will state the reasons for suspension and direct the

Licensee to cease the named activities until the Licensee makes the necessary corrections and the corrections are verified by the Licensor. Upon its receipt, the Licensee shall cease all named activities until authorized in writing by the Contracting Officer that the activities may be resumed.

- d. Either a suspension or a termination action will be issued if a Licensee fails two (2) consecutive audits or is in noncompliance with other terms and conditions of the license. If the Licensee subsequently fails a third consecutive audit, then its license will be terminated.
- e. Failure of the Licensee to have the reimbursement fee (required in Paragraph 2) in the possession of the Licensor, by the date specified either in an NCOA audit deficiency notice or in a notice of suspension or termination, shall be in and of itself sufficient cause for suspension or termination. Said suspensions or terminations shall be without liability to the Licensor.
- 11. Licensee warrants that no person or selling agency has been employed or retained to solicit or secure this agreement upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Licensee for the purpose of securing business. For breach or violation of this warranty, the Postal Service shall have the right to annul this agreement without liability or at its discretion, to recover the full amount of such commission, percentage, brokerage or contingent fee.
- 12. No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this agreement or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.
- 13. NONDISCLOSURE. The Licensee may use the National Change of Address File Tape only as set forth in this agreement and shall not sell, transfer or disclose said tape to any third party without the express written permission of the Postal Service.
- 14. ASSIGNMENT PROHIBITED. Neither this agreement nor any license granted hereunder may be assigned voluntarily or by operation of law.
- 15. This agreement contains the entire understanding of the parties. There are no representations, warranties, promises, covenants, or understandings other than those expressly set forth herein.
- 16. No waiver, alteration, or modification of any of the provisions shall be binding unless in writing and signed by a duly authorized representative of Licensor.

LICENSEE:
BY:
NAME:
TITLE:
DATE:
UNITED STATES POSTAL SERVICE
BY:
NAME:
TITLE: Contracting Officer
DATE:

NATIONAL CHANGE OF ADDRESS FILE

(NCOA)

Licensee Performance Requirements

Prepared by:

NCOA Licensing Administration Dept USPS March 17, 2003



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Licensee Performance Requirements

1.0 PURPOSE

The purpose of these Performance Requirements is to provide standardized name and address matching services through the use of a USPS National Change of Address File to USPS customers who have name and address lists. The second purpose of these Performance Requirements is to establish standard criteria of performance and service and to select "address matching" Licensees from the applicants which best meet the performance requirements.

1.1 The sole purpose of this license and of the above standardized name and address matching services is to provide a mailing list correction service for lists that will be used for the preparation of mailings. Information obtained or derived from the NCOA File or service shall NOT be used by the Licensee, either on its own behalf or knowingly for its customers, for the purpose of creating or maintaining "new movers" lists.

As with the NCOA File itself, no proprietary Licensee list, which contains both old and corresponding new address records (or service product or system of lists that can be used to link old and corresponding new address records), if it is updated by use of the NCOA File, shall be rented or sold or otherwise provided, in whole or in part, to Licensee customers or anyone else.

2.0 BACKGROUND

Currently, USPS Changes of Address (COAs) are maintained at over 200 Computerized Forwarding System (CFS) sites. Change of Address information is made available to mailers and customers upon request by use of an endorsement on the mailer's mailpiece (Refer to Domestic Mail Manual Section F010) or by virtue of the mailpiece being of the Periodicals class.

2.1 <u>NEW NATIONAL CHANGE OF ADDRESS SYSTEM</u>

The National Change of Address file will contain more than 150,000,000 addresses maintained for a 48 month period. This information is assimilated on a central data file maintained by a contractor to the USPS. The contractor site known as the "Concentration Center" builds the NCOA file, maintains it, and standardizes the file. The Concentration Center provides the master NCOA file and weekly file updates consisting of adds, changes and deletes to any and all address matching Licensees.

Address matching Licensees will develop NCOA and National Directory matching software in accordance with the policies set forth in the Performance Requirements and Appendices.

The address-matching Licensee will accept from USPS customers, name and address lists on both magnetic tape and/or disk so as to allow customers to match their lists against the NCOA/National Directory File.

The address matching Licensee will parse and standardize all customer input addresses. All standardized input addresses will be appended with the correct ZIP+4 Code and Delivery Point Code, when applicable. The standardized addresses will then be run against the NCOA file and where a match is found the new address is reported.

The electronic file output which is returned to the customer by the address matching Licensee will include:

- 1. The original address as it was presented.
- 2. The standardized address appended with correct ZIP+4 Code and Delivery Point Code information, when applicable.
- 3. The new address where a match has been found: either a forwardable move with correct ZIP+4 Code and Delivery Point Code information or a nonforwardable move denoted by the appropriate flag as contained on the NCOA database.
- 4. When no new address match is found, only items 1 and 2, above, will be returned, as well as the NDI report noted in item 5, below.
- 5. National Deliverability Index (NDI) Report (NDI report specification is described in Section 8.1). (Optional hardcopy)
- 6. A current USPS Form 3553, or approved facsimile, which may be obtained by contacting the NCSC at 800-238-3150. (Optional hardcopy)
- 7. The urbanization name information for new (updated) addresses.
- 8. The move effective date (CCYYMM) when a match is made.
- 9. Type of record matched (Family, Individual, Business).

OPTIONAL OUTPUT

- 1. The carrier route number for new (corrected) addresses may be returned.
- 2. The level of match (ZIP+4) for all new addresses which are provided with a change of address.

The Licensee may charge the mailer a reasonable fee for NCOA service.

Under the NCOA concept, COA information would be transmitted periodically from over 200 sites located throughout the continental US, Alaska, Hawaii and Puerto Rico and incorporated into the NCOA file. It is our expectation that the number of CFS sites will expand to approximately 215 locations by early 1990.

To date, licensees are operating the NCOA system. Results thus far are positive with notable improvements in the quality of customer address lists and a reduction in the volume of undeliverable as addressed mail.

3.0 PROJECT SCOPE

The USPS has determined significant mailer interest in, and need for, a service referred to as the National Change of Address (NCOA) System.

The system includes a computer database and matching software services through which mailers can obtain address information which postal customers customarily file with the USPS when they move (Change of Address, PS Form 3575). The specific information (new address) would be obtained through a matching process of the mailer's name and address files against the national database of permanent address changes filed during the preceding 48 months. Address change information will be provided to the mailers for only those addresses which, in fact, have a matching old name and address on their files. All customer input addresses will be standardized and appended with the correct ZIP+4 Code and Delivery Point Code, when applicable. Any new address which is provided as the result of a match will also be appended with a ZIP+4 Code and Delivery Point Code.

The NCOA System will be comprised of three primary components. They, with related, major functions, include:

- A. USPS System Management
 - Data Collection
 - Matching Validation Program
- B. Concentration Center NCOA File Build and Maintenance (USPS Contractor)
 - File/Software Distribution
 - Software Specifications Maintenance
- C. Address Matching Licensee(s) NCOA Address Matching Services
 - Matching Software Development and Maintenance
 - NCOA Database
 - National Directory Database

See Appendices B & C for NCOA, National Directory specifications.

Tables I.A., I.B., and I.C. further identify the functions/activities of each component.

TABLE I.A

MAJOR NCOA COMPONENTS-FUNCTIONS-TASKS

I. <u>USPS</u>

OVERALL FUNCTION

- NCOA Management
- COA Data Collection and Distribution
- USPS Customer Service
- NCOA Promotion

SPECIFIC ACTIVITIES

- Form 3575 (COA data acquisition)
- CFS Sites

Data entry Quality control

 Memphis National Customer Support Center

COA data collection NCOA Distribution Center

Quality control statistics

 Matching validation of address matching. Licensee performance audits.

TABLE I.B

MAJOR NCOA COMPONENTS-FUNCTIONS-TASKS

II. CONCENTRATION CENTER (USPS Contractor)

OVERALL FUNCTION

- File Build/Maintenance
- Distribution of database updates to U.S. Postal Service
- Software Specifications Maintenance

SPECIFIC ACTIVITIES

- COA Data Receipt by System
- Address Correction and ZIP+4 Verification/assignment
- File statistics Reports adds - changes - deletes
- File releases
- Quality Control
- Security of Files

TABLE I.C

MAJOR NCOA COMPONENTS-FUNCTIONS-TASKS

III. ADDRESS MATCHING CONTRACTOR - (USPS LICENSEES)

OVERALL FUNCTION

MATCHING SERVICES

SPECIFIC ACTIVITIES

- Software Development/Maintenance
- Matching services (Name, Address, ZIP+4)
- · Supporting reports
- Customer service
- Payments
- Statistics
- Disclosure processing
 Reports
 Accounting
 Billing
- Controlling/managing customers' files
- Receipt of files/updates
- Security of Files

4.0 SYSTEM CONFIGURATION

To assure a high quality and consistent NCOA matching service which can be made available to the widest possible spectrum of mailers, the USPS will use a decentralized approach for providing the matching services and also will employ a centralized approach for NCOA file build, maintenance and distribution.

4.1 USPS

The Memphis National Customer Support Center (NCSC) will act as the NCOA system manager on behalf of the USPS.

The USPS will collect COA data through an existing data communications network located at the USPS NCSC at Memphis, Tennessee. The communication network will encompass all CFS sites. COA data will be transmitted periodically from each CFS location to the Memphis facility on an established schedule. Memphis NCSC will collect all data, perform certain edits, then transmit or ship tapes to the Concentration Center on a predetermined schedule.

4.2 CONCENTRATION CENTER

The Concentration Center will have responsibility for the initial development of the Master NCOA file, plus subsequent updating of the file with change data received from Memphis. While address change data will be provided on a daily basis, actual updating of the file will be performed on a weekly basis.

Because ZIP+4 address matching is an integral part of address and ZIP Code verification, the ZIP+4 file also will continue to be updated weekly. The USPS ZIP+4 matching software, plus the name/address matching software, have been developed by the Concentration Center which will continue enhancement activities (with only USPS approved modifications).

The Concentration Center will provide periodic releases of the NCOA file, as directed or requested by the USPS, to the USPS. Releases will be provided to Licensees weekly. National Directory Files and City State Files will be provided monthly. Occasionally it will be necessary to re-release the master file. These occurrences cannot be prescheduled and will be done on an "as needed" basis.

4.3 ADDRESS MATCHING LICENSEES

Applicants qualifying for, and being accepted by the USPS as Address Matching Licensees for the NCOA System will provide NCOA matching services to the mailers, using USPS files made available to them through the USPS. The files shall not be modified other than as necessary to fit in the data processing environment of the Address Matching Licensees. Those selected as Address Matching Licensees will be provided with a Master Change of Address File, and Master ZIP+4 File and City State File. Updates to these files will be provided as described in Section 4.2, above. The ZIP+4 and City State updates will be made available through the San Mateo Postal Data Center (PDC). The master NCOA file and weekly file updates will be received from the Memphis National Customer Support Center (NCSC).

5.0 GENERAL REQUIREMENTS

The Address Matching Licensee shall provide a complete capability to service NCOA subscribers 5 days per week, Monday through Friday. The Licensee shall be capable of providing the service expectations described in Section 7.3. The complete system shall include:

- 5.1 A USPS customer subscription service that will permit customers to submit address files on magnetic tape and/or disk media on a scheduled basis or on an "as needed" basis. The customers' tape and disk format(s) will be specified by each Licensee. As an option, the Licensee may also provide subscribers with address data transmission capabilities for submission of name and address lists with matched data returned on the same communication lines.
- 5.2 An NCOA database holding a maximum of 48 months of COA data (estimated to be 150,000,000 addresses each, up to 305 characters in length (See Appendix A. NCOA Record Formats) that can be accessed by address matching techniques. It must be capable of performing weekly file updates and shall produce regular utilization and management reports.
- 5.3 An NCOA facility with the following attributes:
 - 1. Trained personnel to staff the address and national directory matching activity and billing activity.
 - 2. Management and supervisory personnel to direct all activities of the facility.
 - 3. Technical support necessary to maintain the hardware, software and customer fulfillment activities.
- 5.4 The Address Matching Licensee shall provide space and equipment for the NCOA system. He shall specify the geographic location of the facility and define any additional buildings, sites, etc., that will be used, if required. The Licensee shall provide maintenance, security, utilities and janitorial services at these sites.
- 5.5 The Address Matching Licensee shall provide all equipment, personnel management, maintenance, training, documentation, facilities, facility management software, and communications necessary to provide mailers with National Change of Address Services.

5.6 NCOA NIXIE ELIMINATION

As an option, NCOA Licensees may provide NCOA Nixie Elimination Service. If the Licensee chooses to exercise this option utilizing the NCOA database, it must be provided in accordance with the requirements set forth in Appendix D.

5.7 The Licensees offering NCOA Nixie Elimination Service are required to provide the USPS with monthly performance reports. Specific instructions and report formats are found in Appendix D.

5.8 LOCATABLE ADDRESS CONVERSION SYSTEM (LACS)

As an option, NCOA Licensees may provide the Locatable Address Conversion System (LACS) service. If the Licensee chooses to exercise this option utilizing the LACS database, it must be provided in accordance with the requirements set forth in Appendix E.

5.9 The Licensees offering LACS service are required to provide the USPS with monthly performance reports. Specific instructions and report formats are found in Appendix E.

6.0 SPECIFIC REQUIREMENTS

In order to provide the service and facilities listed in Section 5.0, General Requirements, the Licensee shall satisfy the following requirements:

6.1 NCOA SYSTEM PLATFORM(S)

The Licensee shall provide an NCOA system platform(s) which contains, and makes available to all USPS subscribers, that database and matching services described in 5.1, 5.2 and 5.3 and is capable of providing customers with the service expectations described in Section 7.3.

The Licensee shall provide the Licensor with complete documentation itemized by component, including any third party software products utilized, for each NCOA system platform that they intend to operate.

6.2 RETRIEVAL (MATCHING) SOFTWARE

The Address Matching Licensee shall develop retrieval software which meets the minimum specifications described in Appendix B and Appendix C and can scan the NCOA file for the one or multiple entries that respond to the inquiry.

- Step 1 City/State or Five-Digit ZIP Code
- Step 2 Street Address/Box Number/Firm/Building/Rural Route
- Step 3 Customer last name (if family/firm) or last and first name (if individual)
- 6.3 The software shall also be capable of:
 - 1. Accessing and displaying each record in the NCOA database.
 - 2. Responding to all address inquiries from subscribers.
 - 3. Updating the NCOA database (received weekly) with additions, changes and deletions.

- 4. Updating National Directory (ZIP+4) and City State databases (received monthly).
- 5. Provide USPS and customer with required reports.
- 6. Provide NCOA customers with Delivery Point Code Information for all input addresses that are ZIP+4 coded via the NCOA system and all new addresses returned as a result of a match to the NCOA database.
- 6.4 The Licensee shall train personnel to manage software and retrieval data communication.
- 6.5 The Licensee shall purge (i.e. destroy completely) change of address data which is in excess of 48 months old. The Licensee shall have the ability to retain this data for longer periods should the USPS so stipulate.
- 6.6 Software Modifications. The Licensee is required to modify all software associated with NCOA, NCOA/Nixie, or LACS services in accordance with any future USPS requirements. Changes will be provided in writing through the Contracting Officer. The Licensee must make all modifications within thirty days of receipt of modifications request. The Postal Service will not pay any costs incurred by the Licensee in making software modifications. The Licensee shall not make any Licensee desired modifications to their NCOA, NCOA/Nixie, or LACS systems without the concurrence of the Licensor. The Licensor will have final approval as to the acceptability and implementation by the Licensee of said changes.

6.7 <u>SOFTWARE MAINTENANCE</u>

The Licensee shall identify and repair software problems, enhance the software system, and incorporate modifications to the NCOA master file and record format into the affected software in the NCOA system. In cases where requested data is in the NCOA master file but the software cannot access it, the Licensee shall provide the necessary modification within one week.

6.8 DATABASE MAINTENANCE

The Licensee shall perform weekly updating of the NCOA database and monthly updating of the ZIP+4 and City State databases with no degradation to system performance. Database updates shall be made within three business days of receipt.

6.9 <u>SYSTEM MANAGEMENT</u>

The Licensee shall determine the necessary staffing level and shall be capable of adjusting the number of supervisory and operational personnel, both upward and downward, to accommodate variations in the volume of customer requirements. The Postal Service cannot forecast the volume or the schedule of names and addresses received from mailers, nor will the Postal Service attempt to direct mailer inquiries to any particular Licensee.

7.0 STANDARDS OF PERFORMANCE

The system provided by the address matching Licensee shall meet the performance requirements specified below:

- 7.1 The system shall take subscriber name and address files submitted on tape, disk or as an option, telecommunicated, and match this information against the NCOA/National Directory files. (See appendixes B & C for specifications.) The Address Matching Licensee will parse and standardize all customer input addresses. (See <u>USPS Publication 28, Postal Addressing Standards</u> and the <u>Address Information Products Technical Guide</u> for standardization guidelines and descriptions.) The standardized address will then be run against the NCOA file and where a match is found the new address is reported. The output which is returned to the customer will include the following:
 - 1. The original address as it was presented.
 - 2. The standardized address appended with correct ZIP+4 Code and Delivery Point Code information, when applicable.
 - 3. The new address where a match has been found: either a forwardable move with correct ZIP+4 Code and Delivery Point Code information or a nonforwardable move denoted by the appropriate flag as contained on the NCOA database.
 - 4. When no new address match is found, only items 1 and 2, above, will be returned, as well as the NDI report noted in item 5, below.
 - 5. National Deliverability Index (NDI) Report (NDI report specification is described in Section 8.1). (Optional hardcopy)
 - 6. A current USPS Form 3553, or approved facsimile, which may be obtained by contacting the NCSC at 800-238-3150. (Optional hardcopy)
 - 7. The urbanization name information for new (updated) addresses.
 - 8. The move effective date (CCYYMM) when a match is made.
 - 9. Type of record matched (Family, Individual, Business).

OPTIONAL OUTPUT

- 1. The carrier route information for new (corrected) addresses may be returned.
- 2. The level of match (ZIP + 4) for all new addresses which are provided with a change of address.

Address matches produced by the applicant's software during initial and subsequent tests shall be identical in terms of accuracy and number of the output produced by the USPS name and address matching test system. The applicant's software may produce no more than one error per 100 name and address matches made when compared to the USPS matching output. An address match omission is considered an error. The USPS shall provide a test input address file and test change of address database to each of the selected applicants. This input address file will have been run against the USPS NCOA matching software to determine the number of matches prior to allowing the applicant to match. The results of the applicant's matching output will be compared to the USPS output to determine the applicant's software acceptability. The output media provided by the applicant to the USPS must match the specifications provided to the applicant by the USPS. Failure of the USPS to be able to read or otherwise use the applicant's file or data therein shall constitute a failure of the process quality review by the applicant. Upon acceptance, the Licensee shall provide the NCOA service to their customers in the identical manner that is tested and approved by the USPS.

During the NCOA process, each address must be standardized and appended with the correct ZIP+4 Code and Delivery Point Code (DPC) information. The ZIP+4 Code and Delivery Point Code information applied by the applicant's software must be identical to the results obtained when the test input addresses are run utilizing the USPS Coding Accuracy Support System (CASS). The applicant's ZIP+4/DPC matching software results will be measured by using the USPS CASS Stage II Certification Process. Each Licensee must maintain a current ZIP+4/DPC CASS Certificate for the ZIP+4/DPC coding software used in their NCOA process and only run the ZIP+4/DPC software in its CASS approved configuration in conjunction with the NCOA process.

A licensee that provides NCOA on-line (telecommunicated) service must provide all required output described in paragraph one. As with all forms of NCOA matching, the licensee may also provide any, or all, optional output described in this section. In addition, the licensee must ensure, through written agreement, that its NCOA clients are using NCOA on-line services for the purpose of correcting addresses on pre-existing name and address mailing list. To ensure the file being processed is an address mailing list, the licensee must receive via transmission file, a minimum of 100 names and addresses during any one on-line session before NCOA matching can proceed.

7.2 <u>CUSTOMER FILE PROCESSING</u>

Normally, the NCOA Licensee will run the customer address file against the entire NCOA database. However, at a customer's request, the Licensee may process the customer's file against an abbreviated NCOA file with the following stipulations:

- The Licensee may not process a customer file against a "raw" NCOA update.
- The Licensee must first ensure that all updates have been included in the master file. Then the Licensee may extract the time period of Change of Address records in the NCOA file which are to be matched against the customer file, as requested by the customer. (For example, customer wants to match against the last 30 days of data.) The Licensee may then match the customer file against this abbreviated data ensuring that all other provisions contained in the performance requirements are met.
- In the absence of a customer request for a specific time period of records to be processed, the Licensee must process the customer's file against the entire NCOA database.
- As an option, the Licensee may segment the NCOA master file for customer processing. The Licensee must ensure that the customer's file is run against <u>ALL</u> appropriate segmentations. The Licensee must also ensure before processing customer files that all updates have been included in the segmented master file.

7.3 <u>SERVICE EXPECTATIONS</u>

Consistent with the Postal Service expectations to provide a quality product, it is necessary for the Licensee to provide NCOA service in a timely manner so as to reduce undeliverable-as-addressed mail.

The following criteria must be met by the Address Matching Licensee:

- 1. Licensee must process and return all customer address list files within seven (7) business days of receipt; unless a longer period is specified by the customer in writing. (Business days are defined as Monday through Friday.) The fulfillment cycle starts the day the customer file is received by the Licensee. The customer's written request will be maintained with the PAFs. Customer requests for longer turnaround times must be kept and made available for Postal Service review for a period of 5 years from date of execution.
- 2. Licensee must maintain a service log as prescribed in Section 8.0 which will include the Customer Processing Acknowledgment Form ID. These service logs will be maintained and be made available for Postal Service review for a period of 5 years. Customers who request a longer turnaround time of their files will be noted as prescribed. This service log shall be kept on a computer file and submitted to the USPS electronically, on disk or other approved media on a monthly basis (for file layout, see Appendix A. NCOA Record Formats).
- 3. Licensee must maintain the service expectation as prescribed in number 2 above, 98% of a monthly evaluated cycle.
- 7.4 The system shall provide accurately matched responses for at least 99% of the inquiries where data to support these responses are known to be in the USPS file. A 96% accuracy performance or standard shall be employed for applied ZIP+4 codes and 100% accuracy performance for Delivery Point Code assignments as measured against the test USPS CASS Certification Process. Address standardization accuracy shall be 99%, when measured against USPS Publication 28 standards, and any standardization requirements in the NCOA Licensee Agreement.

7.5 HARDWARE MAINTENANCE

The Licensee shall promptly repair or have repaired all equipment/hardware deficiencies related to the NCOA system.

7.6 SUBSCRIBER FEES

Since multiple NCOA contract awards are anticipated, the market place will establish a competitive price for the NCOA service. However, the intent of the U.S. Postal Service is that this service will be widely available at reasonable cost to customers. NOTE: The NCOA, NCOA Nixie Elimination and LACS/NCOA service price includes the standardization of addresses and appending these addresses with ZIP+4 Codes and Delivery Point Codes, when applicable.

7.7 CUSTOMER FULFILLMENT

Each customer wishing to subscribe to the NCOA service must be provided by the Licensee with an NCOA product/service brochure that explains in detail the NCOA service. The Postal Service will provide the Licensee with the required text that, in addition to the Licensees own marketing material, must be included in, or with, its product/service brochure (see following Required Text Document). The required text information shall be provided to customers by the licensee at its own expense within 30 days of receipt of the required text from the Postal Service. This required text may be revised by the Postal Service from time to time without prior notice to licensees.

REQUIRED TEXT DOCUMENT

The NCOA file is a consolidated file of move information that on average contains approximately 160 million permanent change-of-address (COA) records filed with the United States Postal Service (USPS). Each record contains the Postal customer's name along with an Old and New address. The Old address is the one compared to the NCOA customer's list for matching purposes and the New address is the one returned to the customer if a match is made. These records are retained on the file for a four-year period from the move-effective date.

The source of the NCOA data is a permanent Change of Address (COA) filed by relocating Postal customers. Approximately 40 million of these COAs are filed annually. The NCOA database is updated weekly with this information.

Before being added to the NCOA file, the **New** address supplied by the Postal customer will be ZIP+4 coded and validated using the USPS' proprietary database of actual delivery points. Each address record matched to the delivery point database is standardized and tagged with the carrier route number, carrier delivery sequence number, ZIP+4 Code, and additional information required for the delivery of mail. The delivery point database does not include NAMES or COA information.

New addresses that cannot be validated using the delivery point data will be suppressed. If the **New** primary address data cannot be confirmed, the deliverability code will contain a 'P' and the **New** address will not be provided. When the **New** secondary information is missing or is invalid, the deliverability code will contain an 'S' and the **New** address will be provided. If during the life of the COA, the delivery point confirmation status changes, the NCOA record will be updated to reflect the change.

The typical profile of the **New** address information contained on the NCOA file is as follows:

77.18% (M) are forwardable moves (contain address information)

3.74% (S) are moves with secondary information missing or invalid – address provided

1.18% (P) are moves but primary address data cannot be confirmed or provided

13.80% (K) are moved-left-no-address

3.92% (G) are PO Box-closed

0.18% (F) are foreign moves

REQUIRED TEXT DOCUMENT (page 2)

Prior to the processing of NCOA data, every customer must have completed and returned to their NCOA licensee the "NCOA PROCESSING ACKNOWLEDGMENT FORM" provided to them by their licensee.

All input addresses submitted by an NCOA customer are standardized and Coding Accuracy Support System (CASS) certified ZIP+4/DPC processed. **New** address information is provided **only** when an NCOA match to the input name and address is attained.

The provision of Change of Address information is controlled by strict name and address matching logic. To make the best use of the information returned to them from the NCOA process, potential customers should understand NCOA matching logic. **All** matches made to the NCOA file require complete address matching logic. Name matching logic is determined by the move type in the data record on the NCOA file that is a candidate for a match.

Move Types and associated Name Logic under standard matching logic are:

- Individual: Match on first name, middle name or initial, surname and title required. (The NCOA customer can elect to have only individual match logic utilized regardless of the move type in the NCOA record when their file is processed.)
- **2. Family:** Match to surname **only.**
- 3. **Business:** Match on entire business name.

The NCOA file is comprised of approximately 40% family moves, 54% individual moves, and 6% business moves.

When possible, postal customers who move multiple times within the four-year period are 'linked' or 'chained' to ensure that the latest address is furnished when an NCOA match is attained. This is not always possible if subsequent COAs are not filed in exactly the same manner as a COA filed previously (e.g., spelling differences in names will not be chained).

NCOA Nixie matching is an optional process that can be requested by the customer from all NCOA licensees. The Nixie matching process provides footnotes indicating why an authorized NCOA match could NOT be made to the input address (e.g., Nixie code 'U'—Apartment Number/Secondary Information Missing).

A National Deliverability Index (NDI) report is supplied for each list that is NCOA processed providing a uniform methodology to evaluate deliverability of the address list.

- 7.8 Customers requiring technical information will contact a customer service group managed by the Licensee. Customers coming to the USPS for information will be provided a list of Licensees authorized to provide the NCOA service.
- 7.9 Advertising for the NCOA, NCOA/NIXIE, or LACS services shall be done by the Licensee only after the Postal Service has approved all advertising contents and formats. (Contact: The NCOA Dept. at USPS National Customer Support Center via fax number 901-767-8853.) Consistent with the sole purpose of the license agreement, advertising will be disapproved if it includes any reference to NCOA, NATIONAL CHANGE OF ADDRESS, USPS, US POSTAL SERVICE, POSTAL SERVICE, etc. anywhere in its text or graphics if that text or graphics includes a reference to non-mailing products and services such as "new movers" lists and "skip tracing."
- 7.10 All customer/subscriber submissions will be fulfilled in conformance with Section 7.3. A tracking system will be established to track fulfillment time for each customer's submission.

7.11 ADD ON SERVICE

Licensees are permitted to "bundle" services such as CRIS and merge/purge along with NCOA services. Charges for such add-on services must be separated from NCOA charges, but may be consolidated on one bill provided to the Licensee's customer.

7.12 Security of NCOA and Mailers' Files/Nondisclosure Agreement

In conjunction with services to be performed as a Licensee of the Postal Service, the Licensee agrees that any and all data and information received from the Postal Service or otherwise obtained or developed in the course of, or as the result of, the performance of such services:

- 1. Shall be kept in strict confidence and shall not be disclosed in any manner to any organization (including professional societies) other than the U.S. Postal Service until released of such obligation by the Contracting Officer in writing;
- 2. Shall, when in the Licensee's possession, be provided with adequate physical, technical, and administrative safeguards to prevent unauthorized access, disclosure, misuse, or attention:
- 3. Shall be returned to the Postal Service or shall be destroyed whenever so directed in writing by the U.S. Postal Service Contracting Officer.

8.0 REPORT AND ADMINISTRATIVE REQUIREMENTS

The licensee shall obtain once annually from each of its NCOA customers, a complete and signed copy of the NCOA PROCESSING ACKNOWLEDGMENT FORM (see next page) and file all such reports as required herein. All filed reports shall be available for inspection by the Contracting Officer and his/her designees and copies shall be provided when and if requested by the Contracting Officer.



Customer ID:

NCOA PROCESSING ACKNOWLEDGEMENT FORM

The collection of information on this Processing Acknowledgement Form (PAF) is required by the Privacy Act of 1974. The United States Postal Service (USPS) requires that each National Change of Address (NCOA) licensee have a completed NCOA PAF for each of their NCOA customers prior to providing the NCOA service. The NCOA Licensee is also required by the USPS to retain a copy of the completed form for each of its customers and to obtain an updated PAF from each of its NCOA customers at minimum once per year. Any signature upon this PAF shall be considered valid for all purposes and have

the same effect whether it is an ink-signed original or a photocopy or facsimile	representation of the original document.
I, the undersigned, an authorized representative of:	
Company Name	
Address	
City/State/ZIP+4	
Telephone Number	Tax Identification Number (TIN)
Name (Please print)	Title
Signature	Date
	nal Change of Address (NCOA) Information Package supplied to me by nsee. I also understand that the sole purpose of the NCOA service is to reparation of mailings.
NCOA LICENSEE	
Business Name (Please print)	
Name (Please print)	Title
Signature	Date
Telephone Number	Tax Identification Number (TIN)
BROKER/AGENT LIST ADMINISTRATOR (Check applic	cable box)
Business Name (Please print)	
Address	City/State/ZIP+4
Name (Please print)	Title
Signature	Date
Telephone Number	Tax Identification Number (TIN)
For Lice	ensee Use Only
Customer ID:	List Administrator ID:

Broker/Agent ID:

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- 8.1 During the operational phase, the Licensee shall provide monthly performance reports by site and/or system platform. The reports begin on the first of the month and terminate after the last day of the month. The reports will be maintained and made available for Postal Service review for a period of 5 years at the Licensee's facility. The reports, except report #5 "NCOA Updates Statistics Report," must be submitted within 7 (seven) calendar days of the end of the month to the National Customer Support Center, Memphis TN, (see 8.6). See Appendix A. NCOA Record Formats for the electronic report file layouts. Performance reports include:
 - Customer Service Log record of all files/lists processed through the NCOA service and the resultant statistics. Service log information must be kept in sequential order by date.
 - 2. Broker/Agent/List Administrator Log record of all List Brokers/Agents and/or List Administrators handling the address lists of their clients that are processed through the NCOA service.
 - 3. National Deliverability Index report by company file providing a uniform methodology to evaluate deliverability of the address lists.
 - 4. Move Activity Report single record of all addresses matched to the NCOA database based on the relative age of each NCOA record matched.
 - 5. Update Statistics report of master file content following a transaction file update. Licensees will apply all updates presented to them by the Postal Service within three business days of receipt. All Licensees must maintain the NCOA master file consistent with the Postal Service Concentration Center in regard to the number and record type make up of master records. This report must be submitted to the National Customer Support Center within two business days of the completion of the update process.
- 8.2 The Licensee will assign each NCOA customer a unique NCOA Customer ID. The format of the ID will be an eight character alphanumeric field consisting of two sub-parts. Positions 1-3 are alpha and will identify the Licensee to the USPS and will be assigned to the Licensee by the USPS for usage. Positions 4-8 are alpha, numeric, or alphanumeric and will identify the customer to the Licensee and to the USPS, and be assigned by the Licensee. This ID will be used to streamline the USPS disclosure accounting procedures. The Licensee will ensure that each of their customers has a unique and never duplicated ID. The ID shall be assigned by the Licensee upon execution of the NCOA Processing Acknowledgment Form and be utilized throughout the system as prescribed. The unique NCOA customer ID will be recorded on the Processing Acknowledgment Form. The form will not be complete and acceptable if this ID is omitted or erroneous.
- 8.2.1 NCOA service requests submitted on behalf of mail list owners by third parties must be fully disclosed and duly recorded on the appropriate Processing Acknowledgment Form. Each of these third parties must be assigned an ID in the same format as that of the customer.
- 8.3 The US Postal Service will perform periodic quality control checks and tests to ensure the accuracy of the match, and the match rate as described in Section 7.1, and that all other

- performance and license requirements are being met. See Appendix A. NCOA Record Formats for the electronic test file layouts.
- 8.4 The Licensee shall provide the USPS Contracting Officer or the Contracting Officer's representatives with access to any resource used in the performance of this license.
- 8.5 The Licensee shall provide designated USPS personnel with the necessary equipment and or reports to monitor performance at the NCOA system facility.
- 8.6 All required monthly reports will be sent via email to the NCSC. As an option the files may be mailed on approved media to:

NCOA Dept National Customer Support Center 6060 Primacy Pkwy Ste 201 Memphis TN 38188-0001

8.7 The Licensee shall, for each file/list processed through its NCOA service, provide the customer with a USPS Form 3553 or approved facsimile that reflects all pertinent information regarding the CASS certified ZIP+4 processing segment of the NCOA service (for most current CASS Form 3553, contact CASS Dept at NCSC at 800-238-3150)

APPENDIX A

NCOA RECORD FORMATS



NCOA HEADER RECORD FORMAT

RECORD	POSITION			
FROM	TO	FIELD NAME AND DESCRIPTION	LENGTH	COBOL
	** [EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILLED	**	
1	16	FILLER	16	X(16)
		The initial 16 bytes are zero filled on the vendor tran header.		
17	17	TRAN CODE	1	X(1)
	17	The literal 'H' in this field denotes it is the header record.		λ(1)
18	25	RELEASE DATE	8	9(8)
		Numeric, Format (YYYYMMDD) Example: 19960116		
26	28	RELEASE NUMBER	3	9(3)
		Numeric. This field contains the three-digit release		
29	37	TOTAL UPDATE RECORDS	9	9(9)
		The total number of records on the file excluding the header record.		
		Numeric, right justified, zero filled. Example: 000001234		
38	46	TOTAL ADD TRANSACTIONS	9	9(9)
		The total number of add records on the file excluding the header record.		
		Numeric, right justified, zero filled. Example: 000001234		
47	55	TOTAL CHANGE TRANSACTIONS	9	9(9)
		The total number of change records on the file excluding the header record.		
		Numeric, right justified, zero filled. Example: 000001234		
56	64	TOTAL DELETE TRANSACTIONS	9	9(9)
		The total number of delete records on the file excluding the header record.		
		Numeric, right justified, zero filled. Example: 000001234		
65	70	PURGE DATE	6	9(6)
		The expiration date used for purging any NCOA record having an effective		
		date equal to or less than this date. Numeric, Format (YYYYMM). Example: 199304		
71	305	FILLER	235	X(235)
71	305	FILLER	235	Ė

NCOA TRANSACTION FILE FORMAT (page 1 of 5)

RECORD	POSITION	FIELD MANE AND DECODIDE	LENGTH	00001
FROM	TO ** F	FIELD NAME AND DESCRIPTION EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILLED	LENGTH	COBOL
	-	TAGEL I WHERE INDIGATED, FIELDO ARE LEL 1 300 HILLD, OF AGE FIELED		
1	16	16 BYTE VENDOR KEY This key is composed of the following four fields.	16	9(16)
1	5	OLD ADDRESS 5 DIGIT ZIP The first five digits of the ZIP Code. The four-digit add-on is represented as on of the old address fields. Numeric. Example: 38111	5	9(5)
3	8	UPDATE NUMBER Number of the update in which the record is received. Numeric, right justified. Example: 131	3	9(3)
9	15	SEQUENCE NUMBER Record number on the input COA update file. Numeric, right justified, zero filled. Example: 0000123	7	9(7)
16	16	DUAL ADDRESS ID Numeric. 0 = Not a dual address, CFS 1 = First address from a dual address, CFS 2 = Second address from a dual address, CFS 5 = Not a dual address, ECI 6 = First address from a dual address, ECI 7 = Second address from a dual address, ECI	1	9(1)
17	17	TRANSACTION CODE Alpha. A = Add C = change D = Delete	1	X(1)
18	18	MOVE TYPE Alpha. B = Business I = Individual F = Family	1	X(1)
19	19	DELIVERABILITY CODE Alpha. G = PO Box Closed K = Moved, left no address M = Forwardable move P = Primary address not on delivery point file S = Primary address valid, secondary address value not found on delivery point file	1	X(1)
20	20	FOREIGN FLAG Alpha. Blank/empty = not foreign F = Foreign move	1	X(1)
21	26	MOVE EFFECTIVE DATE Year and month in which the move takes effect. Numeric. Format (YYYYMM).	6	9(6)

NCOA TRANSACTION FILE FORMAT (page 2 of 5)

RECORD	POSITION			
FROM	ТО	FIELD NAME AND DESCRIPTION	LENGTH	COBOL
	** E	EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILLED *	*	
27	66	BUSINESS NAME FIELD If the record is denoted as a business then this entire field will contain the name of the business. Alphanumeric. Example: CHARLIES INTERNATIONAL FRATERNITIES	40	X(40)
		A business name occupies the same positions as the two following fields, and the first 5 positions of the Middle Name field.		
27	46	LAST NAME Last name of a Family or Individual move. Alphanumeric. Example: SMITH	20	X(20)
47	61	FIRST NAME First name field may be blank for family moves. Alphanumeric. Example: GEORGE	15	X(15)
62	76	MIDDLE NAME/INITIAL Middle name, initial or second first name for family moves. Alphanumeric. Examples: J JAMES	15	X(15)
77	82	PREFIX TITLE Alphanumeric. Example: LTCOL	6	X(6)
83	88	SUFFIX TITLE Alphanumeric. Example: ATTY	6	X(6)
89	98	OLD ADDRESS PRIMARY NUMBER Street number, PO Box number, Rural Route Box number, Highway Contract box number. For a GENERAL DELIVERY or POSTMASTER address the primary number is space filled. Alphanumeric. Right justified, zero filled. Examples: 0000000123 000012 1/2	10	X(10)
99	100	OLD ADDRESS PRE-DIRECTIONAL Alphanumeric (N, S, E, W, NE, NW,SE, SW)	2	X(2)
101	128	OLD ADDRESS PRIMARY NAME Contains street name or the following literals: PO BOX, HC XX, RR XX, (XX = route number), GENERAL DELIVERY, or POSTMASTER. The number that is associated with the Highway Contract, or Rural Route is also contained in this field, if these Addresses have a Box number associated with them, it will be found in the OLD ADDRESS PRIMARY NUMBER. Alphanumeric. Examples: GENERAL DELIVERY MAIN PO BOX HC 1 RR 1	28	X(28)
129	132	OLD ADDRESS SUFFIX Alphanumeric. Example: BLVD	4	X(4)
133	134	OLD ADDRESS POST DIRECTIONAL Alphanumeric (N, S, E, W, NE, NW, SE, SW)	2	X(2)

NCOA TRANSACTION FILE FORMAT (page 3 of 5)

RECORD FROM	POSITION TO	FIELD NAME AND DESCRIPTION	LENGTH	COBOL
	_	EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILLED *		100202
135	138	OLD ADDRESS UNIT DESIGNATOR Alphanumeric (APT, STE, FL, RM, #, BSMT, etc.) Example: APT	4	X(4)
139	146	OLD ADDRESS UNIT DESIGNATOR VALUE Alphanumeric, left justified. All spaces if not present. Examples: 111000 B25	8	X(8)
147	150	OLD ADDRESS PLUS 4 ADD-ON CODE The last 4 digits of the nine digit ZIP code. The first five digits are located at the beginning of the record. This field will be zero if not successfully matched. Numeric. Example:0002	4	X(4)
151	178	OLD ADDRESS URBANIZATION NAME Only provided on some addresses in Puerto Rico. Alphanumeric, left justified. Example: URB SAN MIGUEL	28	X(28)
179	179	LEVEL OF MATCH Alpha. A Alphanumeric secondary number match failed (default assigned) B PO BOX record C Highway Contract with box number D Rural Route default E Alphanumeric match in numeric range F Firm G General Delivery H Building/Highrise I Alphanumeric match in numeric range, building/highrise secondary number J Alphanumeric match in numeric range, HC Box number K Highway Contract default L Building default M Military ZIP default N Non-deliverable O Alphanumeric match in numeric range, PO Box number P Postmaster Q Alphanumeric match in numeric range, RR Box number R Rural Route with box number S Street T Small town, non-carrier delivery U Unique ZIP V Alphanumeric match in numeric range, firm record secondary number W Highrise Default Alternate X Not found Y Ambiguous dual, no match Z Not used	1	X(1)
180	189	NEW ADDRESS PRIMARY NUMBER Street number, PO BOX number, Rural RouteBox number, Highway Contract box number. For a GENERAL DELIVERY or POSTMASTER address the primary number is space filled. Alphanumeric. Right justified, zero filled. Examples: 0000000123 000012 1/2	10	X(10)
190	191	NEW ADDRESS PRE-DIRECTIONAL Alphanumeric (N, S, E, W, NE, NW, SE, SW)	2	X(2)

NCOA TRANSACTION FILE FORMAT (page 4 of 5)

RECORD	POSITION	(page 4 of 5)		
FROM	TO	FIELD NAME AND DESCRIPTION	LENGTH	COBOL
TROW		EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILLED *		COBOL
	_	TAGEL I WHERE INDICATED, FIELDS ARE LET 1 300 HILLD, OF AGE FIELED		
192	219	NEW ADDRESS PRIMARY NAME Contains street name or the following literals: PO BOX, HC XX, RR XX, (XX = route number), GENERAL DELIVERY, or POSTMASTER. The number that is associated with the Highway Contract, or Rural Route is also contained in this field. If these addresses have a Box number associated with them, it will be found in the NEW ADDRESS PRIMARY NUMBER. Alphanumeric. Examples: GENERAL DELIVERY MAIN PO BOX HC 1 RR 1	28	X(28)
220	223	NEW ADDRESS SUFFIX Alphanumeric (ST, BLVD, RD, AVE) Example: BLVD	4	X(4)
224	225	NEW ADDRESS POST DIRECTIONAL Alphanumeric (N, S, E, W, NE, NW, SE, SW) Example: NW	2	X(2)
226	229	NEW ADDRESS UNIT DESIGNATOR Alphanumeric (APT, STE, FL, RM, #, BSMT, etc.) Example: APT	4	X(4)
230	237	NEW ADDRESS UNIT DESIGNATOR VALUE Alphanumeric, left justified. All spaces if not present Examples: 111000 B25	8	X(8)
238	250	NEW ADDRESS CITY 13-character city name associated with the new address.	13	X(13)
251	252	NEW ADDRESS STATE Two character state abbreviation	2	X(2)
253	261	NEW ADDRESS NINE-DIGIT ZIP CODE Example:381180001	9	9(9)
262	264	NEW ADDRESS, DELIVERY POINT CODE	3	9(3)
265	292	NEW ADDRESS URBANIZATION NAME	28	X(28)

NCOA TRANSACTION FILE FORMAT (page 5 of 5)

RECORD	POSITION	(page 5 or 5)		
FROM	то	FIELD NAME AND DESCRIPTION	LENGTH	COBOL
	** E	XCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILLED	**	
293	293	LEVEL OF MATCH Alpha. A Alphanumeric secondary number match failed (default assigned) B PO BOX record C Highway Contract with box number D Rural Route default E Alphanumeric match in numeric range F Firm G General Delivery H Building/Highrise I Alphanumeric match in numeric range, building/highrise secondary number J Alphanumeric match in numeric range, HC Box number K Highway Contract default L Building default M Military ZIP default N Non-deliverable O Alphanumeric match in numeric range, PO Box number P Postmaster Q Alphanumeric match in numeric range, RR Box number R Rural Route with box number S Street T Small town, non-carrier delivery U Unique ZIP V Alphanumeric match in numeric range, firm record secondary number Highrise Default Alternate X Not found Y Ambiguous dual, no match	1	X(1)
		Z Not used		
294	297	NEW ADDRESS CARRIER ROUTE Carrier identification code or number for a given delivery route or PO Box section. Alphanumeric. Examples: 5487 B001 RR01	4	X(4)
298	298	DMA SUPPRESSION FLAG Alphanumeric N = No Y = Yes	1	X(1)
200	205	FOR FLITLIRE LIGE	7	V/7)
299	305	FOR FUTURE USE	7	X(7)

NCOA MONTHLY CUSTOMER SERVICE LOG USE THIS LAYOUT FOR NCOA CSL REPORTS BEGINNING 01/02 (page 1 of 10)

RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
1 IXOIVI		EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILLED		COBOL
		EXOLIT WHERE INDIGRALD, FILLDO ARE LET TOOOTH ILD, OF ROLL FILLED		
1	8	CUSTOMER ID	8	X(8)
•		Alphanumeric. Customer Processing Acknowledgment Form ID.		71(0)
9	38	COMPANY NAME	30	X(30)
3		Alphanumeric. Company name must be true and actual name on licensee	30	λ(50)
		record.		
39	39	ADDITIONAL NOTES	1	X(1)
00	33	The literal "A" in this field denotes that customer provided written request for	'	λ(1)
		longer processing period.		
40	40	SERVICES REQUESTED	1	X(1)
ro	10	1 = NCOA, Nixie, and DPV	'	λ(1)
		2 = NCOA and Nixie only		
		3 = NCOA and DPV only		
		4 = Nixie and DPV only		
		5 = NCOA only		
4.4	144	6 = Nixie only NCOA PROCESSING ONLY	4	\/(4)
41	41		1	X(1)
		Alpha. Customer's address list was processed using NCOA data only.		
		Y = Yes		
10	10	N = No		0(0)
42	43	NO. OF MONTHS PROCESSED AGAINST	2	9(2)
		Numeric, right justified, zero filled. Age of NCOA records against which		
		customer's address list was processed.		
44	44	MATCH LOGIC APPLIED	1	X(1)
		Alpha. Type of match logic applied when processing mail list.		
		S = Standard		
		I = Individual		
45	52	DATE ADDRESS FILE RECEIVED	8	9(8)
		Numeric. Format CCYYMMDD.		
53	60	DATE NCOA PROCESSING COMPLETED	8	9(8)
		Numeric. Format CCYYMMDD.		
61	62	TOTAL PROCESSING DAYS	2	9(2)
		Numeric, right justified, zero filled.		
63	73	TOTAL NUMBER OF RECORDS PROCESSED	11	9(11)
		Numeric, right justified, zero filled.		
74	84	TOTAL NUMBER OF RECORDS MATCHED	11	9(11)
		Numeric, right justified, zero filled.		- ()
85	95	TOTAL NUMBER OF RECORDS ZIP+4 CODED	11	9(11)
		Numeric, right justified, zero filled.		
96	96	CLASS OF MAIL	1	9(1)
		Alphanumeric. Class of mail to be used for mailings produced from customer	·	0(.)
		mailing list.		
		A = First-Class only		
		B = Periodicals only		
		C = Standard Mail only		
		D = Package Services only		
		E = First-Class & Periodicals		1
		F = First-Class & Standard Mail		
		G = First-Class & Package Services		
		H = Periodicals & Standard Mail		1
		I = Periodicals & Package Services		1
		J = Standard Mail & Package Services		1
		K = First-Class, Periodicals & Standard Mail		1
		L = First-Class, Periodicals & Package Services		1
		M = First-Class, Standard Mail & Package Services		1
		N = Periodicals, Standard Mail & Package Services		1
		O = First-Class, Periodical, Standard Mail, Package Services	İ	1

NCOA MONTHLY CUSTOMER SERVICE LOG
USE THIS LAYOUT FOR NCOA CSL REPORTS BEGINNING 01/02 (page 2 of 10)

RECORD FROM	POSITION	FIELD NAME and DESCRIPTION	LENCTH	COBOL
FROIVI	TO **	FIELD NAME and DESCRIPTION EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FIL	LENGTH	COBOL
		EXOLITI WILKE INDICATED, FIELDS ARE LEFT 300 HILD, SFACE FIE	LLD	
97	104	BROKER/AGENT ID	8	X(8)
105	112	LIST ADMINISTRATOR ID	8	X(8)
113	124	CUSTOMER TAX IDENTIFICATION NUMBER (TIN)	12	X(12)
	•		•	
		ZIP+4 MATCH STATISTICS		
125	135	Total matched to PO box record	11	9(11)
136	146	Total matched to highway contract record with box	11	9(11)
		number		
147	157	Total matched to rural route default	11	9(11)
158	168	Total matched to firm record	11	9(11)
169	179	Total matched to general delivery	11	9(11)
180	190	Total matched to building/highrise	11	9(11)
191	201	Total matched to military zip default	11	9(11)
202	212	Total matched to non-deliverable	11	9(11)
213	223	Total matched to rural route with box number	11	9(11)
224	234	Total matched to street record	11	9(11)
235	245	Total matched to other	11	9(11)
246	256	EWS – No Match Count	11	9(11)
		Note: This refere to the Level of Matter and the address		
057	007	Note: This refers to the Level of Match on the old-side address	44	0(44)
257	267	NCOA MATCH MADE WITH LEVEL OF MATCH 'A'	11	9(11)
268	278	LEVEL OF MATCH 'A' – INDIVIDUAL MOVE	11	9(11)
279	289	LEVEL OF MATCH 'A' – FAMILY MOVE	11	9(11)
290 301	300 311	LEVEL OF MATCH 'A' – BUSINESS MOVE LEVEL OF MATCH 'A' – FORWARDABLE MOVE	11 11	9(11) 9(11)
312	322	LEVEL OF MATCH 'A' – NEW PRIM ADDR INVALID	11	9(11)
323	333	LEVEL OF MATCH 'A' – NEW SEC'Y # INVALID	11	9(11)
334	344	LEVEL OF MATCH 'A' – PO BOX CLOSED	11	9(11)
345	355	LEVEL OF MATCH 'A' – MOVE, LEFT NO ADDRESS	11	9(11)
356	366	LEVEL OF MATCH 'A' – FOREIGN MOVE	11	9(11)
367	377	LEVEL OF MATCH 'A' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
378	388	LEVEL OF MATCH A - INFOT ADDRESS NOT ZIF44 CODED LEVEL OF MATCH 'A' - RETURNED FOOTNOTE 'A1'	11	9(11)
389	399	LEVEL OF MATCH 'A' – RETURNED FOOTNOTE 'A2'	11	9(11)
400	410	LEVEL OF MATCH 'A' – RETURNED FOOTNOTE 'A3'	11	9(11)
411	421	LEVEL OF MATCH 'A' – RETURNED FOOTNOTE 'A4'	11	9(11)
	121	LEVEL OF MINTOFF A REPORTED FOR THOSE AT	11	0(11)
422	432	NCOA MATCH MADE WITH LEVEL OF MATCH 'B'	11	9(11)
433	443	LEVEL OF MATCH 'B' – INDIVIDUAL MOVE	11	9(11)
444	454	LEVEL OF MATCH 'B' – FAMILY MOVE	11	9(11)
455	465	LEVEL OF MATCH 'B' – BUSINESS MOVE	11	9(11)
466	476	LEVEL OF MATCH 'B' – FORWARDABLE MOVE	11	9(11)
477	487	LEVEL OF MATCH 'B' – NEW PRIM ADDR INVALID	11	9(11)
488	498	LEVEL OF MATCH 'B' – NEW SEC'Y # INVALID	11	9(11)
499	509	LEVEL OF MATCH 'B' – PO BOX CLOSED	11	9(11)
510	520	LEVEL OF MATCH 'B' – MOVE, LEFT NO ADDRESS	11	9(11)
521	531	LEVEL OF MATCH 'B' – FOREIGN MOVE	11	9(11)
532	542	LEVEL OF MATCH 'B' - INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
543	553	LEVEL OF MATCH 'B' – RETURNED FOOTNOTE 'A1'	11	9(11)
554	564	LEVEL OF MATCH 'B' – RETURNED FOOTNOTE 'A2'	11	9(11)
565	575	LEVEL OF MATCH 'B' – RETURNED FOOTNOTE 'A3'	11	9(11)
576	586	LEVEL OF MATCH 'B' – RETURNED FOOTNOTE 'A4'	11	9(11)
				` ,
587	597	NCOA MATCH MADE WITH LEVEL OF MATCH 'C'	11	9(11)
598	608	LEVEL OF MATCH 'C' – INDIVIDUAL MOVE	11	9(11)
609	619	LEVEL OF MATCH 'C' – FAMILY MOVE	11	9(11)
620	630	LEVEL OF MATCH 'C' – BUSINESS MOVE	11	9(11)

NCOA MONTHLY CUSTOMER SERVICE LOG USE THIS LAYOUT FOR NCOA CSL REPORTS BEGINNING 01/02 (page 3 of 10)

RECORD	POSITION	SE THIS LAYOUT FOR NCOA CSL REPORTS BEGINNING 01/02 (page 3	1	
FROM	TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
TROW		EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILI		TOODOL
631	641	LEVEL OF MATCH 'C' – FORWARDABLE MOVE	11	9(11)
642	652	LEVEL OF MATCH 'C' – NEW PRIM ADDR INVALID	11	9(11)
653	663	LEVEL OF MATCH 'C' - NEW SEC'Y # INVALID	11	9(11)
664	674	LEVEL OF MATCH 'C' - PO BOX CLOSED	11	9(11)
675	685	LEVEL OF MATCH 'C' - MOVE, LEFT NO ADDRESS	11	9(11)
686	696	LEVEL OF MATCH 'C' – FOREIGN MOVE	11	9(11)
697	707	LEVEL OF MATCH 'C' - INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
708	718	LEVEL OF MATCH 'C' – RETURNED FOOTNOTE 'A1'	11	9(11)
719	729	LEVEL OF MATCH 'C' – RETURNED FOOTNOTE 'A2'	11	9(11)
730	740	LEVEL OF MATCH 'C' – RETURNED FOOTNOTE 'A3'	11	9(11)
741	751	LEVEL OF MATCH 'C' – RETURNED FOOTNOTE 'A4'	11	9(11)
752	762	NCOA MATCH MADE WITH LEVEL OF MATCH 'D'	11	9(11)
763	773	LEVEL OF MATCH 'D' – INDIVIDUAL MOVE	11	9(11)
774	784	LEVEL OF MATCH 'D' – FAMILY MOVE	11	9(11)
785	795	LEVEL OF MATCH 'D' – BUSINESS MOVE	11	9(11)
796	806	LEVEL OF MATCH 'D' – FORWARDABLE MOVE	11	9(11)
807	817	LEVEL OF MATCH 'D' – NEW PRIM ADDR INVALID	11	9(11)
818	828	LEVEL OF MATCH 'D' – NEW SEC'Y # INVALID	11	9(11)
829	839	LEVEL OF MATCH 'D' – PO BOX CLOSED	11	9(11)
840	850	LEVEL OF MATCH 'D' – MOVE, LEFT NO ADDRESS	11	9(11)
851	861	LEVEL OF MATCH 'D' – FOREIGN MOVE	11	9(11)
862	872	LEVEL OF MATCH 'D' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
873	883	LEVEL OF MATCH 'D' – RETURNED FOOTNOTE 'A1'	11	9(11)
884	894	LEVEL OF MATCH 'D' – RETURNED FOOTNOTE 'A2'	11	9(11)
895	905	LEVEL OF MATCH 'D' – RETURNED FOOTNOTE 'A3'	11	9(11)
906	916	LEVEL OF MATCH 'D' – RETURNED FOOTNOTE 'A4'	11	9(11)
	T		T	1 - (, 1)
917	927	NCOA MATCH MADE WITH LEVEL OF MATCH 'E'	11	9(11)
928	938	LEVEL OF MATCH 'E'- INDIVIDUAL MOVE	11	9(11)
939	949	LEVEL OF MATCH 'E' – FAMILY MOVE	11	9(11)
950	960	LEVEL OF MATCH 'E' – BUSINESS MOVE	11	9(11)
961	971	LEVEL OF MATCH 'E' – FORWARDABLE MOVE	11	9(11)
972	982	LEVEL OF MATCH 'E' – NEW PRIM ADDR INVALID	11	9(11)
983	993	LEVEL OF MATCH 'E' – NEW SEC'Y # INVALID	11	9(11)
994	1004	LEVEL OF MATCH 'E' – PO BOX CLOSED	11	9(11)
1005	1015	LEVEL OF MATCH 'E' – MOVE, LEFT NO ADDRESS	11	9(11)
1016	1026	LEVEL OF MATCH 'E' – FOREIGN MOVE	11	9(11)
1027	1037	LEVEL OF MATCH 'E' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
1038	1048	LEVEL OF MATCH 'E' – RETURNED FOOTNOTE 'A1'	11	9(11)
1049	1059	LEVEL OF MATCH 'E' – RETURNED FOOTNOTE 'A2'	11	9(11)
1060	1070	LEVEL OF MATCH (E) – RETURNED FOOTNOTE (A3)	11	9(11)
1071	1081	LEVEL OF MATCH 'E' – RETURNED FOOTNOTE 'A4'	11	9(11)
1000	1000	NICOA MATCHIMADE WITH EVEL OF MATCH (5)	144	0(44)
1082	1092	NCOA MATCH MADE WITH LEVEL OF MATCH 'F'	11	9(11)
1093	1103	LEVEL OF MATCH 'F' – INDIVIDUAL MOVE	11	9(11)
1104	1114	LEVEL OF MATCH 'F' – FAMILY MOVE	11	9(11)
1115	1125	LEVEL OF MATCH 'F' – BUSINESS MOVE	11	9(11)
1126	1136	LEVEL OF MATCH 'F' – FORWARDABLE MOVE	11	9(11)
1137	1147	LEVEL OF MATCH 'F' – NEW PRIM ADDR INVALID	11	9(11)
1148	1158	LEVEL OF MATCH 'F' – NEW SEC'Y # INVALID	11	9(11)
1159	1169	LEVEL OF MATCH (F) – PO BOX CLOSED	11	9(11)
1170	1180	LEVEL OF MATCH 'F' – MOVE, LEFT NO ADDRESS	11	9(11)
1181	1191	LEVEL OF MATCH 'F' – FOREIGN MOVE	11	9(11)
1192	1202	LEVEL OF MATCH 'F' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
1203	1213	LEVEL OF MATCH 'F' – RETURNED FOOTNOTE 'A1'	11	9(11)
1214	1224	LEVEL OF MATCH 'F' – RETURNED FOOTNOTE 'A2'	11	9(11)

NCOA MONTHLY CUSTOMER SERVICE LOG USE THIS LAYOUT FOR NCOA CSL REPORTS BEGINNING 01/02 (page 4 of 10)

DECORD		DSE THIS LAYOUT FOR NCOA CSL REPORTS BEGINNING 01/02 (page 4	01 10)	
RECORD	POSITION	FIELD NAME and DESCRIPTION	LENCTH	COBOL
FROM	TO	FIELD NAME and DESCRIPTION EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILI	LENGTH	COBOL
		EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILE	LED	
1225	1235	LEVEL OF MATCH 'F' – RETURNED FOOTNOTE 'A3'	11	9(11)
1236	1246	LEVEL OF MATCH F - RETURNED FOOTNOTE 43 LEVEL OF MATCH 'F' - RETURNED FOOTNOTE 'A4'	11	9(11)
1230	1240	LEVEL OF MATCH F - RETURNED FOOTNOTE A4	11	9(11)
1247	1257	NCOA MATCH MADE WITH LEVEL OF MATCH 'G'	11	9(11)
1258	_		11	9(11)
1269	1268 1279	LEVEL OF MATCH 'G' – INDIVIDUAL MOVE LEVEL OF MATCH 'G' – FAMILY MOVE	11	9(11)
1280	1290	LEVEL OF MATCH 'G' – BUSINESS MOVE	11	9(11)
1291	1301	LEVEL OF MATCH 'G' – BOSINESS MOVE LEVEL OF MATCH 'G' – FORWARDABLE MOVE	11	9(11)
1302	1312	LEVEL OF MATCH 'G' – NEW PRIM ADDR INVALID	11	9(11)
1313	1323	LEVEL OF MATCH 'G' – NEW SEC'Y # INVALID	11	9(11)
1324	1334	LEVEL OF MATCH 'G' – PO BOX CLOSED	11	9(11)
1335	1345	LEVEL OF MATCH 'G' – MOVE, LEFT NO ADDRESS	11	9(11)
1346	1356	LEVEL OF MATCH 'G' – FOREIGN MOVE	11	9(11)
1357	1367	LEVEL OF MATCH 'G' – FOREIGN MOVE LEVEL OF MATCH 'G' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
1368	1378	LEVEL OF MATCH G = INFOT ADDRESS NOT ZIF44 CODED LEVEL OF MATCH 'G' = RETURNED FOOTNOTE 'A1'	11	
1379	1378	LEVEL OF MATCH 'G' – RETURNED FOOTNOTE 'A2'	11	9(11)
1379	1400	LEVEL OF MATCH 'G' – RETURNED FOOTNOTE 'A2' LEVEL OF MATCH 'G' – RETURNED FOOTNOTE 'A3'	11	9(11)
1401	1411	LEVEL OF MATCH 'G' – RETURNED FOOTNOTE 'A4'	11	9(11)
1401	1411	LEVEL OF WATCH & - RETURNED FOOTNOTE A4	11	2(11)
1412	1422	NCOA MATCH MADE WITH LEVEL OF MATCH 'H'	11	9(11)
1412	1433	LEVEL OF MATCH 'H' – INDIVIDUAL MOVE	11	9(11)
1423	1444	LEVEL OF MATCH H - INDIVIDUAL MOVE LEVEL OF MATCH 'H' - FAMILY MOVE	11	9(11)
1434	1455	LEVEL OF MATCH 'H' – BUSINESS MOVE	11	9(11)
1445	1466	LEVEL OF MATCH H - BOSINESS MOVE LEVEL OF MATCH 'H' - FORWARDABLE MOVE	11	9(11)
1467	1477	LEVEL OF MATCH H - PORWARDABLE MOVE LEVEL OF MATCH 'H' - NEW PRIM ADDR INVALID	11	9(11)
1478	1488	LEVEL OF MATCH H - NEW SEC'Y # INVALID	11	9(11)
1489	1499	LEVEL OF MATCH H = NEW SEC T# INVALID LEVEL OF MATCH 'H' = PO BOX CLOSED	11	9(11)
1500	1510	LEVEL OF MATCH 11 - PO BOX CLOSED LEVEL OF MATCH 11 - PO BOX CLOSED	11	9(11)
1511	1521	LEVEL OF MATCH 'H' – FOREIGN MOVE	11	9(11)
1522	1532	LEVEL OF MATCH 'H' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
1533	1543	LEVEL OF MATCH 'H' – RETURNED FOOTNOTE 'A1'	11	9(11)
1544	1554	LEVEL OF MATCH 'H' – RETURNED FOOTNOTE 'A2'	11	9(11)
1555	1565	LEVEL OF MATCH 'H' – RETURNED FOOTNOTE 'A2' LEVEL OF MATCH 'H' – RETURNED FOOTNOTE 'A3'	11	9(11)
1566	1576	LEVEL OF MATCH 'H' – RETURNED FOOTNOTE 'A4'	11	9(11)
1500	1370	LEVEL OF MATCH II - RETURNED FOOTNOTE A4	111	9(11)
1577	1587	NCOA MATCH MADE WITH LEVEL OF MATCH 'I'	11	9(11)
1588	1598	LEVEL OF MATCH 'I' – INDIVIDUAL MOVE	11	9(11)
1599	1609	LEVEL OF MATCH 'I' – FAMILY MOVE	11	9(11)
1610	1620	LEVEL OF MATCH 'I' – BUSINESS MOVE	11	9(11)
1621	1631	LEVEL OF MATCH 'I' – FORWARDABLE MOVE	11	9(11)
1632	1642	LEVEL OF MATCH 17 – NEW PRIM ADDR INVALID	11	9(11)
1643	1653	LEVEL OF MATCH 'I' – NEW SEC'Y # INVALID	11	9(11)
1654	1664	LEVEL OF MATCH 'I' – PO BOX CLOSED	11	9(11)
1665	1675	LEVEL OF MATCH 1' - MOVE, LEFT NO ADDRESS	11	9(11)
1676	1686	LEVEL OF MATCH 'I' – FOREIGN MOVE	11	9(11)
1687	1697	LEVEL OF MATCH 'I' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
1698	1708	LEVEL OF MATCH 'I' – RETURNED FOOTNOTE 'A1'	11	9(11)
1709	1719	LEVEL OF MATCH 'I' – RETURNED FOOTNOTE 'A2'	11	9(11)
1720	1730	LEVEL OF MATCH 'I' – RETURNED FOOTNOTE 'A3'	11	9(11)
1731	1741	LEVEL OF MATCH 'I' – RETURNED FOOTNOTE 'A4'	11	9(11)
	1	TELEVISION INCIDENTIAL TOTAL PROPERTY OF THE P	1	1 ~()
1742	1752	NCOA MATCH MADE WITH LEVEL OF MATCH 'J'	11	9(11)
1753	1763	LEVEL OF MATCH 'J' – INDIVIDUAL MOVE	11	9(11)
1764	1774	LEVEL OF MATCH 'J' – FAMILY MOVE	11	9(11)
1775	1785	LEVEL OF MATCH 'J' – BUSINESS MOVE	11	9(11)
1775	1796	LEVEL OF MATCH 'J' – BOSINESS MOVE LEVEL OF MATCH 'J' – FORWARDABLE MOVE	11	9(11)
1797	1807	LEVEL OF MATCH 3 - PORWARDABLE MOVE LEVEL OF MATCH 13 - PORWARDABLE MOVE	11	9(11)
1131	1007	LEVEL OF INATOR 3 - NEW FRIM ADDIT INVALID	[11	1 3(11)

NCOA MONTHLY CUSTOMER SERVICE LOG USE THIS LAYOUT FOR NCOA CSL REPORTS BEGINNING 01/02 (page 5 of 10)

DECORD		SE THIS LAYOUT FOR NCOA CSL REPORTS BEGINNING 01/02 (page 5 o	J. 10)	
RECORD	POSITION	FIELD NAME and DECODIDITION	LENGTH	CODOL
FROM	TO **	FIELD NAME and DESCRIPTION	LENGTH	COBOL
		EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILL	-ED ""	
4000	1010	LEVEL OF MATCHER MEW CECKY # INVALID	144	0(44)
1808	1818	LEVEL OF MATCH 'J' – NEW SEC'Y # INVALID	11	9(11)
1819	1829	LEVEL OF MATCH 'J' – PO BOX CLOSED	11	9(11)
1830	1840	LEVEL OF MATCH 'J' – MOVE, LEFT NO ADDRESS	11	9(11)
1841	1851	LEVEL OF MATCH 'J' – FOREIGN MOVE	11	9(11)
1852	1862	LEVEL OF MATCH 'J' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
1863	1873	LEVEL OF MATCH 'J' – RETURNED FOOTNOTE 'A1'	11	9(11)
1874	1884	LEVEL OF MATCH 'J' – RETURNED FOOTNOTE 'A2'	11	9(11)
1885	1895	LEVEL OF MATCH 'J' – RETURNED FOOTNOTE 'A3'	11	9(11)
1896	1906	LEVEL OF MATCH 'J' – RETURNED FOOTNOTE 'A4'	11	9(11)
	1			
1907	1917	NCOA MATCH MADE WITH LEVEL OF MATCH 'K'	11	9(11)
1918	1928	LEVEL OF MATCH 'K' – INDIVIDUAL MOVE	11	9(11)
1929	1939	LEVEL OF MATCH 'K' – FAMILY MOVE	11	9(11)
1940	1950	LEVEL OF MATCH 'K' – BUSINESS MOVE	11	9(11)
1951	1961	LEVEL OF MATCH 'K' – FORWARDABLE MOVE	11	9(11)
1962	1972	LEVEL OF MATCH 'K' – NEW PRIM ADDR INVALID	11	9(11)
1973	1983	LEVEL OF MATCH 'K' – NEW SEC'Y # INVALID	11	9(11)
1984	1994	LEVEL OF MATCH 'K' – PO BOX CLOSED	11	9(11)
1995	2005	LEVEL OF MATCH 'K' – MOVE, LEFT NO ADDRESS	11	9(11)
2006	2016	LEVEL OF MATCH 'K' – FOREIGN MOVE	11	9(11)
2017	2027	LEVEL OF MATCH 'K' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
2028	2038	LEVEL OF MATCH 'K' – RETURNED FOOTNOTE 'A1'	11	9(11)
2039	2049	LEVEL OF MATCH 'K' – RETURNED FOOTNOTE 'A2'	11	9(11)
2050	2060	LEVEL OF MATCH 'K' – RETURNED FOOTNOTE 'A3'	11	9(11)
2061	2071	LEVEL OF MATCH 'K' – RETURNED FOOTNOTE 'A4'	11	9(11)
				,
2072	2082	NCOA MATCH MADE WITH LEVEL OF MATCH 'L'	11	9(11)
2083	2093	LEVEL OF MATCH 'L' – INDIVIDUAL MOVE	11	9(11)
2094	2104	LEVEL OF MATCH 'L' – FAMILY MOVE	11	9(11)
2105	2115	LEVEL OF MATCH 'L' – BUSINESS MOVE	11	9(11)
2116	2126	LEVEL OF MATCH 'L' – FORWARDABLE MOVE	11	9(11)
2127	2137	LEVEL OF MATCH 'L' – NEW PRIM ADDR INVALID	11	9(11)
2138	2148	LEVEL OF MATCH 'L' – NEW SEC'Y # INVALID	11	9(11)
2149	2159	LEVEL OF MATCH 'L' – PO BOX CLOSED	11	9(11)
2160	2170	LEVEL OF MATCH 'L' – MOVE, LEFT NO ADDRESS	11	9(11)
2171	2181	LEVEL OF MATCH 'L' – FOREIGN MOVE	11	9(11)
2182	2192	LEVEL OF MATCH 'L' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
2193	2203	LEVEL OF MATCH 'L' – RETURNED FOOTNOTE 'A1'	11	9(11)
2204	2214	LEVEL OF MATCH 'L' – RETURNED FOOTNOTE 'A2'	11	9(11)
2215	2225	LEVEL OF MATCH 'L' – RETURNED FOOTNOTE 'A2' LEVEL OF MATCH 'L' – RETURNED FOOTNOTE 'A3'	11	9(11)
2226	2236	LEVEL OF MATCH L = RETURNED FOOTNOTE AS LEVEL OF MATCH (L' = RETURNED FOOTNOTE (A4')	11	9(11)
222U	2200	LEVEL OF WINTOFF E - NETONINED FOOTINGTE A4	11	1 3(11)
2237	2247	NCOA MATCH MADE WITH LEVEL OF MATCH 'M'	11	9(11)
2237	2258	LEVEL OF MATCH 'M' – INDIVIDUAL MOVE	11	9(11)
2248	2269	LEVEL OF MATCH M - INDIVIDUAL MOVE LEVEL OF MATCH M' - FAMILY MOVE	11	9(11)
2270	2280	LEVEL OF MATCH 'M' – BUSINESS MOVE LEVEL OF MATCH 'M' – FORWARDABLE MOVE	11	9(11)
2281	2291		11	9(11)
2292	2302	LEVEL OF MATCH (M' – NEW PRIM ADDR INVALID	11	9(11)
2303	2313	LEVEL OF MATCH 'M' – NEW SEC'Y # INVALID	11	9(11)
2314	2324	LEVEL OF MATCH 'M' – PO BOX CLOSED	11	9(11)
2325	2335	LEVEL OF MATCH 'M' – MOVE, LEFT NO ADDRESS	11	9(11)
2336	2346	LEVEL OF MATCH 'M' – FOREIGN MOVE	11	9(11)
2347	2357	LEVEL OF MATCH 'M' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
2358	2368	LEVEL OF MATCH 'M' – RETURNED FOOTNOTE 'A1'	11	9(11)
2369	2379	LEVEL OF MATCH 'M' – RETURNED FOOTNOTE 'A2'	11	9(11)
2380	2390	LEVEL OF MATCH 'M' – RETURNED FOOTNOTE 'A3'	11	9(11)
2391	2401	LEVEL OF MATCH 'M' – RETURNED FOOTNOTE 'A4'	11	9(11)

NCOA MONTHLY CUSTOMER SERVICE LOG USE THIS LAYOUT FOR NCOA CSL REPORTS BEGINNING 01/02 (page 6 of 10)

RECORD	POSITION	" 0	ĺ	
FROM	TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
	** [EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILI	LED **	
	T =	T		T
2402	2412	NCOA MATCH MADE WITH LEVEL OF MATCH 'N'	11	9(11)
2413	2423	LEVEL OF MATCH 'N' – INDIVIDUAL MOVE	11	9(11)
2424	2434	LEVEL OF MATCH 'N' – FAMILY MOVE	11	9(11)
2435	2445	LEVEL OF MATCH 'N' – BUSINESS MOVE	11	9(11)
2446	2456	LEVEL OF MATCH 'N' – FORWARDABLE MOVE	11	9(11)
2457	2467	LEVEL OF MATCH 'N' – NEW PRIM ADDR INVALID	11	9(11)
2468	2478	LEVEL OF MATCH 'N' – NEW SEC'Y # INVALID	11	9(11)
2479	2489	LEVEL OF MATCH 'N' – PO BOX CLOSED	11	9(11)
2490	2500	LEVEL OF MATCH 'N' – MOVE, LEFT NO ADDRESS	11	9(11)
2501	2511	LEVEL OF MATCH 'N' – FOREIGN MOVE	11	9(11)
2512	2522	LEVEL OF MATCH 'N' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
2523	2533	LEVEL OF MATCH 'N' – RETURNED FOOTNOTE 'A1'	11	9(11)
2534	2544	LEVEL OF MATCH 'N' – RETURNED FOOTNOTE 'A2'	11	9(11)
2545	2555	LEVEL OF MATCH 'N' – RETURNED FOOTNOTE 'A3'	11	9(11)
2556	2566	LEVEL OF MATCH 'N' – RETURNED FOOTNOTE 'A4'	11	9(11)
		T	1	
2567	2577	NCOA MATCH MADE WITH LEVEL OF MATCH 'O'	11	9(11)
2578	2588	LEVEL OF MATCH 'O' – INDIVIDUAL MOVE	11	9(11)
2589	2599	LEVEL OF MATCH 'O' – FAMILY MOVE	11	9(11)
2600	2610	LEVEL OF MATCH 'O' – BUSINESS MOVE	11	9(11)
2611	2621	LEVEL OF MATCH 'O' – FORWARDABLE MOVE	11	9(11)
2622	2632	LEVEL OF MATCH 'O' – NEW PRIM ADDR INVALID	11	9(11)
2633	2643	LEVEL OF MATCH 'O' – NEW SEC'Y # INVALID	11	9(11)
2644	2654	LEVEL OF MATCH 'O' - PO BOX CLOSED	11	9(11)
2655	2665	LEVEL OF MATCH 'O' - MOVE, LEFT NO ADDRESS	11	9(11)
2666	2676	LEVEL OF MATCH 'O' – FOREIGN MOVE	11	9(11)
2677	2687	LEVEL OF MATCH 'O' - INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
2688	2698	LEVEL OF MATCH 'O' - RETURNED FOOTNOTE 'A1'	11	9(11)
2699	2709	LEVEL OF MATCH 'O' – RETURNED FOOTNOTE 'A2'	11	9(11)
2710	2720	LEVEL OF MATCH 'O' – RETURNED FOOTNOTE 'A3'	11	9(11)
2721	2731	LEVEL OF MATCH 'O' – RETURNED FOOTNOTE 'A4'	11	9(11)
2732	2742	NCOA MATCH MADE WITH LEVEL OF MATCH 'P'	11	9(11)
2743	2753	LEVEL OF MATCH 'P' – INDIVIDUAL MOVE	11	9(11)
2754	2764	LEVEL OF MATCH 'P' – FAMILY MOVE	11	9(11)
2765	2775	LEVEL OF MATCH 'P' - BUSINESS MOVE	11	9(11)
2776	2786	LEVEL OF MATCH 'P' – FORWARDABLE MOVE	11	9(11)
2787	2797	LEVEL OF MATCH 'P' – NEW PRIM ADDR INVALID	11	9(11)
2798	2808	LEVEL OF MATCH 'P' – NEW SEC'Y # INVALID	11	9(11)
2809	2819	LEVEL OF MATCH 'P' – PO BOX CLOSED	11	9(11)
2820	2830	LEVEL OF MATCH 'P' – MOVE, LEFT NO ADDRESS	11	9(11)
2831	2841	LEVEL OF MATCH 'P' – FOREIGN MOVE	11	9(11)
2842	2852	LEVEL OF MATCH 'P' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
2853	2863	LEVEL OF MATCH 'P' – RETURNED FOOTNOTE 'A1'	11	9(11)
2864	2874	LEVEL OF MATCH 'P' – RETURNED FOOTNOTE 'A2'	11	9(11)
2875	2885	LEVEL OF MATCH 'P' – RETURNED FOOTNOTE 'A3'	11	9(11)
2886	2896	LEVEL OF MATCH I PRETURNED FOOTNOTE 'A4'	11	9(11)
	1 2000	LEVEL OF MINITORY INCIDENTIAL PROPERTY.	' '	1 5(11)
2897	2907	NCOA MATCH MADE WITH LEVEL OF MATCH 'Q'	11	9(11)
2908	2918	LEVEL OF MATCH 'Q' – INDIVIDUAL MOVE	11	9(11)
2919	2929	LEVEL OF MATCH Q - INDIVIDUAL MOVE	11	9(11)
2930	2940	LEVEL OF MATCH Q - PAMILY MOVE LEVEL OF MATCH 'Q' - BUSINESS MOVE	11	9(11)
2930 2941	2951	LEVEL OF MATCH Q – BOSINESS MOVE LEVEL OF MATCH 'Q' – FORWARDABLE MOVE	11	9(11)
2941 2952	2962	LEVEL OF MATCH Q - FORWARDABLE MOVE LEVEL OF MATCH 'Q' - NEW PRIM ADDR INVALID	11	9(11)
2963	2973	LEVEL OF MATCH 'Q' – NEW SEC'Y # INVALID	11	9(11)
2974	2984	LEVEL OF MATCH 'Q' – PO BOX CLOSED	11	9(11)
2985	2995	LEVEL OF MATCH 'Q' – MOVE, LEFT NO ADDRESS	11	9(11)

NCOA MONTHLY CUSTOMER SERVICE LOG USE THIS LAYOUT FOR NCOA CSL REPORTS BEGINNING 01/02 (page 7 of 10)

RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
i itolii		EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILI		TOODOL
	_			
2996	3006	LEVEL OF MATCH 'Q' – FOREIGN MOVE	11	9(11)
3007	3017	LEVEL OF MATCH 'Q' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
3018	3028	LEVEL OF MATCH 'Q' – RETURNED FOOTNOTE 'A1'	11	9(11)
3029	3039	LEVEL OF MATCH 'Q' – RETURNED FOOTNOTE 'A2'	11	9(11)
3040	3050	LEVEL OF MATCH 'Q' – RETURNED FOOTNOTE 'A3'	11	9(11)
3051	3061	LEVEL OF MATCH 'Q' – RETURNED FOOTNOTE 'A4'	11	9(11)
3062	3072	NCOA MATCH MADE WITH LEVEL OF MATCH 'R'	11	9(11)
3062 3073	3083	LEVEL OF MATCH 'R' – INDIVIDUAL MOVE	11	9(11)
3084	3094	LEVEL OF MATCH 'R' – FAMILY MOVE	11	9(11)
3095	3105	LEVEL OF MATCH 'R' – BUSINESS MOVE	11	9(11)
3106	3116	LEVEL OF MATCH 'R' – BOSINESS MOVE LEVEL OF MATCH 'R' – FORWARDABLE MOVE	11	9(11)
3117	3127	LEVEL OF MATCH 'R' – NEW PRIM ADDR INVALID	11	9(11)
3128	3138	LEVEL OF MATCH 'R' – NEW SEC'Y # INVALID	11	9(11)
3139	3149	LEVEL OF MATCH R - NEW SEC 1 # INVALID LEVEL OF MATCH 'R' - PO BOX CLOSED	11	9(11)
3150	3160	LEVEL OF MATCH 'R' – MOVE, LEFT NO ADDRESS	11	9(11)
3161	3171	LEVEL OF MATCH R - MOVE, LEFT NO ADDRESS LEVEL OF MATCH 'R' - FOREIGN MOVE	11	9(11)
3172	3182	LEVEL OF MATCH 'R' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
3183	3193	LEVEL OF MATCH 'R' – RETURNED FOOTNOTE 'A1'	11	9(11)
3194	3204	LEVEL OF MATCH 'R' – RETURNED FOOTNOTE 'A2'	11	9(11)
3205	3215	LEVEL OF MATCH R - RETURNED FOOTNOTE 'A2'	11	9(11)
3216	3226	LEVEL OF MATCH R - RETURNED FOOTNOTE 'A4'	11	9(11)
3227	3237	NCOA MATCH MADE WITH LEVEL OF MATCH 'S'	11	9(11)
3238	3248	LEVEL OF MATCH 'S' – INDIVIDUAL MOVE	11	9(11)
3249	3259	LEVEL OF MATCH 'S' – FAMILY MOVE	11	9(11)
3260	3270	LEVEL OF MATCH 'S' – BUSINESS MOVE	11	9(11)
3271	3281	LEVEL OF MATCH 'S' – FORWARDABLE MOVE	11	9(11)
3282	3292	LEVEL OF MATCH 'S' – NEW PRIM ADDR INVALID	11	9(11)
3293	3303	LEVEL OF MATCH 'S' – NEW SEC'Y # INVALID	11	9(11)
3304	3314	LEVEL OF MATCH 'S' – PO BOX CLOSED	11	9(11)
3315	3325	LEVEL OF MATCH 'S' – MOVE, LEFT NO ADDRESS	11	9(11)
3326	3336	LEVEL OF MATCH 'S' – FOREIGN MOVE	11	9(11)
3337	3347	LEVEL OF MATCH 'S' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
3348	3358	LEVEL OF MATCH 'S' – RETURNED FOOTNOTE 'A1'	11	9(11)
3359	3369	LEVEL OF MATCH 'S' – RETURNED FOOTNOTE 'A2'	11	9(11)
3370	3380	LEVEL OF MATCH (S' – RETURNED FOOTNOTE (A3'	11	9(11)
3381	3391	LEVEL OF MATCH 'S' – RETURNED FOOTNOTE 'A4'	11	9(11)
3392	3402	NCOA MATCH MADE WITH LEVEL OF MATCH 'T'	11	9(11)
3403	3413	LEVEL OF MATCH 'T' – INDIVIDUAL MOVE	11	9(11)
3414	3424	LEVEL OF MATCH 'T' – FAMILY MOVE	11	9(11)
3425	3435	LEVEL OF MATCH 'T' – BUSINESS MOVE	11	9(11)
3436	3446	LEVEL OF MATCH 'T' – FORWARDABLE MOVE	11	9(11)
3447	3457	LEVEL OF MATCH 'T' – NEW PRIM ADDR INVALID	11	9(11)
3458	3468	LEVEL OF MATCH 'T' – NEW SEC'Y # INVALID	11	9(11)
3469	3479	LEVEL OF MATCH 'T' – PO BOX CLOSED	11	9(11)
3480	3490	LEVEL OF MATCH 'T' – MOVE, LEFT NO ADDRESS	11	9(11)
3491	3501	LEVEL OF MATCH 'T' – FOREIGN MOVE	11	9(11)
3502	3512	LEVEL OF MATCH 'T' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
3513	3523	LEVEL OF MATCH 'T' – RETURNED FOOTNOTE 'A1'	11	9(11)
3524	3534	LEVEL OF MATCH 'T' – RETURNED FOOTNOTE 'A2'	11	9(11)
3535	3545	LEVEL OF MATCH 'T' – RETURNED FOOTNOTE 'A3'	11	9(11)
3546	3556	LEVEL OF MATCH 'T' – RETURNED FOOTNOTE 'A4'	11	9(11)
3557	3567	NCOA MATCH MADE WITH LEVEL OF MATCH 'U'	11	9(11)
3568	3578	LEVEL OF MATCH 'U' – INDIVIDUAL MOVE	11	9(11)

NCOA MONTHLY CUSTOMER SERVICE LOG USE THIS LAYOUT FOR NCOA CSL REPORTS BEGINNING 01/02 (page 8 of 10)

RECORD	POSITION	SE THIS LAYOUT FOR NCOA CSL REPORTS BEGINNING 01/02 (page 8	1	
FROM	TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
TROW		EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FIL		1 00002
3579	3589	LEVEL OF MATCH 'U' – FAMILY MOVE	11	9(11)
3590	3600	LEVEL OF MATCH 'U' - BUSINESS MOVE	11	9(11)
3601	3611	LEVEL OF MATCH 'U' – FORWARDABLE MOVE	11	9(11)
3612	3622	LEVEL OF MATCH 'U' – NEW PRIM ADDR INVALID	11	9(11)
3623	3633	LEVEL OF MATCH 'U' - NEW SEC'Y # INVALID	11	9(11)
3634	3644	LEVEL OF MATCH 'U' - PO BOX CLOSED	11	9(11)
3645	3655	LEVEL OF MATCH 'U' - MOVE, LEFT NO ADDRESS	11	9(11)
3656	3666	LEVEL OF MATCH 'U' – FOREIGN MOVE	11	9(11)
3667	3677	LEVEL OF MATCH 'U' - INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
3678	3688	LEVEL OF MATCH 'U' – RETURNED FOOTNOTE 'A1'	11	9(11)
3689	3699	LEVEL OF MATCH 'U' – RETURNED FOOTNOTE 'A2'	11	9(11)
3700	3710	LEVEL OF MATCH 'U' – RETURNED FOOTNOTE 'A3'	11	9(11)
3711	3721	LEVEL OF MATCH 'U' – RETURNED FOOTNOTE 'A4'	11	9(11)
3722	3732	NCOA MATCH MADE WITH LEVEL OF MATCH 'V'	11	9(11)
3733	3743	LEVEL OF MATCH 'V' – INDIVIDUAL MOVE	11	9(11)
3744	3754	LEVEL OF MATCH 'V' – FAMILY MOVE	11	9(11)
3755	3765	LEVEL OF MATCH 'V' – BUSINESS MOVE	11	9(11)
3766	3776	LEVEL OF MATCH 'V' – FORWARDABLE MOVE	11	9(11)
3777	3787	LEVEL OF MATCH 'V' – NEW PRIM ADDR INVALID	11	9(11)
3788	3798	LEVEL OF MATCH 'V' – NEW SEC'Y # INVALID	11	9(11)
3799	3809	LEVEL OF MATCH 'V' - PO BOX CLOSED	11	9(11)
3810	3820	LEVEL OF MATCH 'V' – MOVE, LEFT NO ADDRESS	11	9(11)
3821	3831	LEVEL OF MATCH 'V' – FOREIGN MOVE	11	9(11)
3832	3842	LEVEL OF MATCH 'V' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
3843	3853	LEVEL OF MATCH 'V' – RETURNED FOOTNOTE 'A1'	11	9(11)
3854	3864	LEVEL OF MATCH 'V' – RETURNED FOOTNOTE 'A2'	11	9(11)
3865	3875	LEVEL OF MATCH 'V' – RETURNED FOOTNOTE 'A3'	11	9(11)
3876	3886	LEVEL OF MATCH 'V' – RETURNED FOOTNOTE 'A4'	11	9(11)
3887	3897	NCOA MATCH MADE WITH LEVEL OF MATCH 'W'	11	9(11)
3898	3908	LEVEL OF MATCH 'W' – INDIVIDUAL MOVE	11	9(11)
3909	3919	LEVEL OF MATCH 'W' – FAMILY MOVE	11	9(11)
3920	3930	LEVEL OF MATCH 'W' – BUSINESS MOVE	11	9(11)
3931	3941	LEVEL OF MATCH 'W' – FORWARDABLE MOVE	11	9(11)
3942	3952	LEVEL OF MATCH 'W' – NEW PRIM ADDR INVALID	11	9(11)
3953	3963	LEVEL OF MATCH 'W' – NEW SEC'Y # INVALID	11	9(11)
3964	3974	LEVEL OF MATCH 'W' – PO BOX CLOSED	11	9(11)
3975	3985	LEVEL OF MATCH 'W' – MOVE, LEFT NO ADDRESS	11	9(11)
3986	3996	LEVEL OF MATCH 'W' – FOREIGN MOVE	11	9(11)
3997	4007	LEVEL OF MATCH 'W' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
4008	4018	LEVEL OF MATCH 'W' – RETURNED FOOTNOTE 'A1'	11	9(11)
4019	4029	LEVEL OF MATCH 'W' – RETURNED FOOTNOTE 'A2'	11	9(11)
4030	4040	LEVEL OF MATCH 'W' – RETURNED FOOTNOTE 'A3'	11	9(11)
4041	4051	LEVEL OF MATCH 'W' – RETURNED FOOTNOTE 'A4'	11	9(11)
4050	1,000	NOOA MATOLIMADE WITH EVEL OF MATOLINY	144	0(44)
4052	4062	NCOA MATCH MADE WITH LEVEL OF MATCH 'X'	11	9(11)
4063	4073	LEVEL OF MATCH (X) – INDIVIDUAL MOVE	11	9(11)
4074	4084	LEVEL OF MATCH (X) - FAMILY MOVE	11	9(11)
4085	4095	LEVEL OF MATCH (X) – BUSINESS MOVE	11	9(11)
4096	4106	LEVEL OF MATCH (X) – FORWARDABLE MOVE	11	9(11)
4107	4117	LEVEL OF MATCH 'X' – NEW PRIM ADDR INVALID	11	9(11)
4118	4128	LEVEL OF MATCH 'X' – NEW SEC'Y # INVALID	11	9(11)
4129	4139	LEVEL OF MATCH 'X' – PO BOX CLOSED	11	9(11)
4140	4150	LEVEL OF MATCH 'X' – MOVE, LEFT NO ADDRESS	11	9(11)
4151	4161	LEVEL OF MATCH 'X' – FOREIGN MOVE	11	9(11)
4162	4172	LEVEL OF MATCH 'X' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)

NCOA MONTHLY CUSTOMER SERVICE LOG USE THIS LAYOUT FOR NCOA CSL REPORTS BEGINNING 01/02 (page 9 of 10)

RECORD	POSITION	SE THIS LAYOUT FOR NCOA CSL REPORTS BEGINNING 01/02 (page 9 of	<u>.</u>	
FROM	TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
TROW		EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILLEI		TOODOL
		EXOLIT WHERE INDIGNIED, HEEDONICE EEL 1 000111 1ED, OF NOET IEEE	,	
4173	4183	LEVEL OF MATCH 'X' – RETURNED FOOTNOTE 'A1'	11	9(11)
4184	4194	LEVEL OF MATCH 'X' – RETURNED FOOTNOTE 'A2'	11	9(11)
4195	4205	LEVEL OF MATCH 'X' – RETURNED FOOTNOTE 'A3'	11	9(11)
4206	4216	LEVEL OF MATCH 'X' – RETURNED FOOTNOTE 'A4'	11	9(11)
				- (/
4217	4227	NCOA MATCH MADE WITH LEVEL OF MATCH 'Y'	11	9(11)
4228	4238	LEVEL OF MATCH 'Y' – INDIVIDUAL MOVE	11	9(11)
4239	4249	LEVEL OF MATCH 'Y' – FAMILY MOVE	11	9(11)
4250	4260	LEVEL OF MATCH 'Y' - BUSINESS MOVE	11	9(11)
4261	4271	LEVEL OF MATCH 'Y' – FORWARDABLE MOVE	11	9(11)
4272	4282	LEVEL OF MATCH 'Y – NEW PRIM ADDR INVALID	11	9(11)
4283	4293	LEVEL OF MATCH 'Y' - NEW SEC'Y # INVALID	11	9(11)
4294	4304	LEVEL OF MATCH 'Y' – PO BOX CLOSED	11	9(11)
4305	4315	LEVEL OF MATCH 'Y' – MOVE, LEFT NO ADDRESS	11	9(11)
4316	4326	LEVEL OF MATCH 'Y' – FOREIGN MOVE	11	9(11)
4327	4337	LEVEL OF MATCH 'Y' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
4338	4348	LEVEL OF MATCH 'Y' – RETURNED FOOTNOTE 'A1'	11	9(11)
4349	4359	LEVEL OF MATCH 'Y' – RETURNED FOOTNOTE 'A2'	11	9(11)
4360	4370	LEVEL OF MATCH 'Y' – RETURNED FOOTNOTE 'A3'	11	9(11)
4371	4381	LEVEL OF MATCH 'Y' – RETURNED FOOTNOTE 'A4'	11	9(11)
				'
4382	4392	NCOA MATCH MADE WITH LEVEL OF MATCH 'Z'	11	9(11)
4393	4403	LEVEL OF MATCH 'Z' – INDIVIDUAL MOVE	11	9(11)
4404	4414	LEVEL OF MATCH 'Z' – FAMILY MOVE	11	9(11)
4415	4425	LEVEL OF MATCH 'Z' – BUSINESS MOVE	11	9(11)
4426	4436	LEVEL OF MATCH 'Z' – FORWARDABLE MOVE	11	9(11)
4437	4447	LEVEL OF MATCH 'Z' – NEW PRIM ADDR INVALID	11	9(11)
4448	4458	LEVEL OF MATCH 'Z' – NEW SEC'Y # INVALID	11	9(11)
4459	4469	LEVEL OF MATCH 'Z' – PO BOX CLOSED	11	9(11)
4470	4480	LEVEL OF MATCH 'Z' – MOVE, LEFT NO ADDRESS	11	9(11)
4481	4491	LEVEL OF MATCH 'Z' – FOREIGN MOVE	11	9(11)
4492	4502	LEVEL OF MATCH 'Z' – INPUT ADDRESS NOT ZIP+4 CODED	11	9(11)
4503	4513	LEVEL OF MATCH 'Z' – RETURNED FOOTNOTE 'A1'	11	9(11)
4514	4524	LEVEL OF MATCH 'Z' – RETURNED FOOTNOTE 'A2'	11	9(11)
4525	4535	LEVEL OF MATCH 'Z' – RETURNED FOOTNOTE 'A3'	11	9(11)
4536	4546	LEVEL OF MATCH 'Z' – RETURNED FOOTNOTE 'A4'	11	9(11)
4547	4557	TOTAL RECORDS WITH NIXIE MATCH	11	9(11)
4558	4568	NIXIE MATCH MADE WITH NIXIE CODE 'D'	11	9(11)
4569	4579	FILLER	11	9(11)
4580	4590	NIXIE MATCH MADE WITH NIXIE CODE 'F'	11	9(11)
4591	4601	NIXIE MATCH MADE WITH NIXIE CODE 'G'	11	9(11)
4602	4612	NIXIE MATCH MADE WITH NIXIE CODE 'H'	11	9(11)
4613	4623	NIXIE MATCH MADE WITH NIXIE CODE 'I'	11	9(11)
4624	4634	NIXIE MATCH MADE WITH NIXIE CODE 'J'	11	9(11)
4635	4645	NIXIE MATCH MADE WITH NIXIE CODE 'K'	11	9(11)
4646	4656	NIXIE MATCH MADE WITH NIXIE CODE 'L'	11	9(11)
4657	4667	NIXIE MATCH MADE WITH NIXIE CODE 'M'	11	9(11)
4668	4678	NIXIE MATCH MADE WITH NIXIE CODE 'N'	11	9(11)
4679	4689	NIXIE MATCH MADE WITH NIXIE CODE 'O'	11	9(11)
4690	4700	NIXIE MATCH MADE WITH NIXIE CODE 'P'	11	9(11)
4701	4711	NIXIE MATCH MADE WITH NIXIE CODE 'Q'	11	9(11)
4712	4722	NIXIE MATCH MADE WITH NIXIE CODE 'R'	11	9(11)
4723	4733	NIXIE MATCH MADE WITH NIXIE CODE 'S'	11	9(11)
4734	4744	NIXIE MATCH MADE WITH NIXIE CODE 'T'	11	9(11)
4745	4755	NIXIE MATCH MADE WITH NIXIE CODE 'U'	11	9(11)
4756	4766	NIXIE MATCH MADE WITH NIXIE CODE 'V'	11	9(11)

NCOA MONTHLY CUSTOMER SERVICE LOG
USE THIS LAYOUT FOR NCOA CSL REPORTS BEGINNING 01/02 (page 10 of 10)

RECORD	POSITION	SETHIS LATOUT FOR NCOA CSL REPORTS BEGINNING 01/02 (page 10 01 1	<u> </u>	
FROM	TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
	**	EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILLED	**	-1
4767	4777	NIXIE MATCH MADE WITH NIXIE CODE 'W'	11	9(11)
4778	4788	NIXIE MATCH MADE WITH NIXIE CODE 'X'	11	9(11)
4789	4799	NIXIE MATCH MADE WITH NIXIE CODE 'Y'	11	9(11)
4800	4810	NIXIE MATCH MADE WITH NIXIE CODE 'Z'	11	9(11)
		NDI (National Deliverability Index) INFORMATION		
4811	4821	APT/STE NUMBERS Total number of ZIP +4 matches for addresses containing apartment/suite numbers for which an apartment/building record is identified in the ZIP+4 file.	11	9(11)
4822	4832	Route & Box Numbers Total number of ZIP +4 matches for addresses identified with "RR" or "HC" record types which contain route numbers and box numbers.	11	9(11)
4833	4843	5-DIGIT ZIP Total number of addresses with a correct 5-digit ZIP code as verified against the City/State and 5-digit files.	11	9(11)
4844	4854	CARRIER ROUTE CODES Total number of addresses with correct Carrier Route Codes.	11	9(11)

Note: All numeric fields are right justified, zero filled.

Note: This file shall be submitted in standard ASCII text format. The file shall be named using "C," the 3-character code assigned by the NCSC with the month, year and an extension of DAT. (e.g. CNAA1297.DAT)

BROKER/AGENT FILE USE THIS LAYOUT BEGINNING 09/01 (page 1 of 1)

RECORD	POSITION			
FROM	TO	FIELD NAME	LENGTH	COBOL
	**	EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE F	FILLED **	•
1	8	Broker/Agent Id	8	X(8)
9	58	Broker/Agent Company Name	50	X(50)
59	108	Broker/Agent Address	50	X(50)
109	136	City	28	X(28)
137	138	State	2	X(02)
139	143	ZIP Code	5	X(05)
144	147	Plus 4 Code	4	X(04)
148	157	Telephone Number	10	X(10)
158	169	Tax Identification Number (Tin)	12	X(12)
170	177	List Administrator Id	8	X(8)
178	227	List Administrator Company Name	50	X(50)
228	277	List Administrator Address	50	X(50)
278	305	City	28	X(28)
306	307	State	2	X(02)
308	312	ZIP Code	5	X(05)
313	316	Plus 4 Code	4	X(04)
317	326	Telephone Number	10	X(10)
327	338	Tax Identification Number (Tin)	12	X(12)

Note: This file shall be submitted in standard ASCII text format. The file shall be named using "B," the 3-character code assigned by the NCSC with the month, year and an extension of DAT. (e.g. BNAA1297.DAT)

MONTHLY NATIONAL DELIVERABILITY INDEX (NDI) USE THIS LAYOUT FOR NDI REPORTS FROM 10/98 TO PRESENT (page 1 of 1)

RECORD	POSITION			
FROM	TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
	** [EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILLED) **	
1	40	COMPANY NAME Alphanumeric. Company name must be true and actual name or record.	40	X(40)
41	46	% ZIP+4 CODED Numeric, format 999.99. % of total addresses in list which have been accurately matched and standardized using the ZIP+4 file.	6	999.99
47	50	FILLER Alphanumeric, value = " % ". Value of FILLER must be a space, a percent sign, and two spaces.	4	X(4)
51	56	% APT/STE NUMBERS Numeric, format 999.99. % of total addresses containing apartment/suite numbers for which an Apt/Bldg record is identified in the ZIP+4 file.	6	999.99
57	60	FILLER Alphanumeric, value = " % ". Value of FILLER must be a space, a percent sign, and two spaces.	4	X(4)
61	66	% ROUTE AND BOX NUMBERS Numeric, format 999.99. % of total addresses identified with "RR" or "HC" record types which contain route numbers and box numbers.	6	999.99
67	70	FILLER Alphanumeric, value = " % ". Value of FILLER must be a space, a percent sign, and two spaces.	4	X(4)
71	76	% 5-DIGIT ZIP Numeric, format 999.99. % of total addresses with correct 5-digit ZIP Code as verified against the City/State and 5-digit files.	6	999.99
77	80	FILLER Alphanumeric, value = " % ". Value of FILLER must be a space, a percent sign, and two spaces.	4	X(4)
81	86	% CARRIER ROUTE CODES Numeric, format 999.99. % of total addresses with correct Carrier Route Codes.	6	999.99
87	90	FILLER Alphanumeric, value = " % ". Value of FILLER must be a space, a percent sign, and two spaces.	4	X(4)
91	98	DATE NCOA PROCESSING COMPLETED Alphanumeric. Date list was processed through NCOA and the updates applied to the list.	8	X(8)
		Year Received Filler (value = ".") Julian Date (i.e. 154=June 3, 196=July 15)		9(4) X(1) 9(3)

Note: This file shall be submitted in standard ASCII text format. The file shall be named using "N," the 3 character code assigned by the NCSC with the month, year and an extension of DAT. (e.g. NNAA1297.DAT)

48 MONTH MOVE ACTIVITY REPORT USE THIS LAYOUT FOR 48 MONTH REPORTS FROM 07/01 TO PRESENT (page 1 of 2)

RECORD	POSITION			
FROM	TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
		** ALL NUMERIC FIELDS ARE RIGHT JUSTIFIED, ZERO FILLED **	T -	T - 4-3
1	3	LICENSEE'S ID	3	9(3)
4		3 chr code assigned by the NCSC. Left justified, space filled. Example: NAA		0(0)
4	9	PROCESS DATE	6	9(6)
10	20	Numeric, format CCYYMM. Example: 199806 ADDRESSES MATCHED MONTH 1	11	9(11)
10	20	Total number of matches made with MED corresponding to the report date.	11	9(11)
21	31	ADDRESSES MATCHED MONTH 2	11	0(44)
21	31	Total number of matches made with MED of 1 month prior to report date.	11	9(11)
00	40	ADDRESSES MATCHED MONTH 3	44	0(44)
32	42		11	9(11)
10		Total number of matches made with MED of 2 months prior to report date.	1.1	0(44)
43	53	ADDRESSES MATCHED MONTH 4	11	9(11)
		Total number of matches made with MED of 3 months prior to report date.		
54	64	ADDRESSES MATCHED MONTH 5	11	9(11)
		Total number of matches made with MED of 4 months prior to report date.		
65	75	ADDRESSES MATCHED MONTH 6	11	9(11)
		Total number of matches made with MED of 5 months prior to report date.		
76	86	ADDRESSES MATCHED MONTH 7	11	9(11)
		Total number of matches made with MED of 6 months prior to report date.		
87	97	ADDRESSES MATCHED MONTH 8	11	9(11)
		Total number of matches made with MED of 7 months prior to report date.		
98	108	ADDRESSES MATCHED MONTH 9	11	9(11)
		Total number of matches made with MED of 8 months prior to report date.		
109	119	ADDRESSES MATCHED MONTH 10	11	9(11)
		Total number of matches made with MED of 9 months prior to report date.		
120	130	ADDRESSES MATCHED MONTH 11	11	9(11)
		Total number of matches made with MED of 10 months prior to report date		, ,
131	141	ADDRESSES MATCHED MONTH 12	11	9(11)
		Total number of matches made with MED of 11 months prior to report date.		, ,
142	152	ADDRESSES MATCHED MONTH 13	11	9(11)
		Total number of matches made with MED of 12 months prior to report date.		
153	163	ADDRESSES MATCHED MONTH 14	11	9(11)
		Total number of matches made with MED of 13 months prior to report date.		3()
164	174	ADDRESSES MATCHED MONTH 15	11	9(11)
101	'' '	Total number of matches made with MED of 14 months prior to report date.	' '	0(11)
175	185	ADDRESSES MATCHED MONTH 16	11	9(11)
170	100	Total number of matches made with MED of 15 months prior to report date.	''	3(11)
186	196	ADDRESSES MATCHED MONTH 17	11	9(11)
100	130	Total number of matches made with MED of 16 months prior to report date.	''	3(11)
197	207	ADDRESSES MATCHED MONTH 18	11	9(11)
131	201	Total number of matches made with MED of 17 months prior to report date.	' '	9(11)
208	218	ADDRESSES MATCHED MONTH 19	11	9(11)
200	210	Total number of matches made with MED of 18 months prior to report date.	' '	3(11)
219	220	ADDRESSES MATCHED MONTH 20	11	0(11)
419	229	Total number of matches made with MED of 19 months prior to report date.	' '	9(11)
220	240	·	11	0(44)
230	240	ADDRESSES MATCHED MONTH 21	11	9(11)
244	054	Total number of matches made with MED of 20 months prior to report date.	144	0(11)
241	251	ADDRESSES MATCHED MONTH 22	11	9(11)
		Total number of matches made with MED of 21 months prior to report date.		
252	262	ADDRESSES MATCHED MONTH 23	11	9(11)
		Total number of matches made with MED of 22 months prior to report date.		
263	273	ADDRESSES MATCHED MONTH 24	11	9(11)
		Total number of matches made with MED of 23 months prior to report date.		
274	284	ADDRESSES MATCHED MONTH 25	11	9(11)
		Total number of matches made with MED of 24 months prior to report date.	1	

48 MONTH MOVE ACTIVITY REPORT
USE THIS LAYOUT FOR 48 MONTH REPORTS FROM 07/01 TO PRESENT (page 2 of 2)

RECORD	POSITION	FIELD NAME I DECODIDATION	LENGTH	0050
FROM	TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
205	T 005	** ALL NUMERIC FIELDS ARE RIGHT JUSTIFIED, ZERO FILLED **	144	0(44)
285	295	ADDRESSES MATCHED MONTH 26	11	9(11)
		Total number of matches made with MED of 25 months prior to report date.		
296	306	ADDRESSES MATCHED MONTH 27	11	9(11)
		Total number of matches made with MED of 26 months prior to report date.		
307	317	ADDRESSES MATCHED MONTH 28	11	9(11)
		Total number of matches made with MED of 27 months prior to report date.		
318	328	ADDRESSES MATCHED MONTH 29	11	9(11)
		Total number of matches made with MED of 28 months prior to report date.		
329	339	ADDRESSES MATCHED MONTH 30	11	9(11)
		Total number of matches made with MED of 29 months prior to report date.		
340	350	ADDRESSES MATCHED MONTH 31	11	9(11)
		Total number of matches made with MED of 30 months prior to report date.		
351	361	ADDRESSES MATCHED MONTH 32	11	9(11)
		Total number of matches made with MED of 31 months prior to report date.		()
362	372	ADDRESSES MATCHED MONTH 33	11	9(11)
002	012	Total number of matches made with MED of 32 months prior to report date.	' '	3(11)
373	383	ADDRESSES MATCHED MONTH 34	11	9(11)
373	303	Total number of matches made with MED of 33 months prior to report date.	' '	3(11)
384	394	ADDRESSES MATCHED MONTH 35	11	9(11)
304	394		11	9(11)
395	405	Total number of matches made with MED of 34 months prior to report date. ADDRESSES MATCHED MONTH 36	11	9(11)
393	405	Total number of matches made with MED of 35 months prior to report date.	' '	9(11)
100	110	·	1	0(11)
406	416	ADDRESSES MATCHED MONTH 37	11	9(11)
		Total number of matches made with MED of 36 months prior to report date.		
417	427	ADDRESSES MATCHED MONTH 38	11	9(11)
		Total number of matches made with MED of 37 months prior to report date.		
428	438	ADDRESSES MATCHED MONTH 39	11	9(11)
		Total number of matches made with MED of 38 months prior to report date.		
439	449	ADDRESSES MATCHED MONTH 40	11	9(11)
		Total number of matches made with MED of 39 months prior to report date.		
450	460	ADDRESSES MATCHED MONTH 41	11	9(11)
		Total number of matches made with MED of 40 months prior to report date.		` ′
461	471	ADDRESSES MATCHED MONTH 42	11	9(11)
		Total number of matches made with MED of 41 months prior to report date.		()
472	482	ADDRESSES MATCHED MONTH 43	11	9(11)
7/2	402	Total number of matches made with MED of 42 months prior to report date.	' '	3(11)
483	493	ADDRESSES MATCHED MONTH 44	11	9(11)
403	493	Total number of matches made with MED of 43 months prior to report date.	11	9(11)
404	504		44	0(44)
494	504	ADDRESSES MATCHED MONTH 45	11	9(11)
		Total number of matches made with MED of 44 months prior to report date.		- ()
505	515	ADDRESSES MATCHED MONTH 46	11	9(11)
		Total number of matches made with MED of 45 months prior to report date.		
516	526	ADDRESSES MATCHED MONTH 47	11	9(11)
		Total number of matches made with MED of 46 months prior to report date.		
527	537	ADDRESSES MATCHED MONTH 48	11	9(11)
		Total number of matches made with MED of 47 months or more prior to		` ′
		report date.		
538	548	TOTAL ADDRESSES MATCHED	11	9(11)
	1 5.5	Total number of matches made for all MEDs this report period.	1	٠(٠٠)

Note: This file shall be submitted in standard ASCII text format. The file shall be named using "M," the 3-character code assigned by the NCSC with the month, year and an extension of DAT. (e.g. MNAA1297.DAT)

WEEKLY NCOA UPDATE STATISTICS
USE THIS LAYOUT FOR THIS REPORT FROM 10/98 TO PRESENT (page 1 of 1)

RECORD	POSITION			
FROM	TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
	** [EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILLED	**	
1	3	LICENSEE ID	3	X(3)
		Alpha. The 3 character code assigned by the NCSC.		()
4	6	RELEASE NUMBER	3	9(3)
		Numeric. The three-digit release number corresponding to the current		
		update.		
7	14	PROCESS DATE	8	9(8)
		Numeric, format CCYYMMDD. Date update successfully loaded.		
15	23	MASTER FILE INPUT	9	9(9)
		Numeric, right justified, zero filled. Total number of records on the INPUT		
	1	master file.		2(2)
24	32	UPDATES APPLIED: ADDS	9	9(9)
		Numeric, right justified, zero filled. Total number of add transactions applied		
20	11	during update process.	0	0(0)
33	41	UPDATES APPLIED: CHANGES Numeric, right justified, zero filled. Total number of change transactions	9	9(9)
42	50	applied during update process. UPDATES APPLIED: DELETES	9	9(9)
42	50	Numeric, right justified, zero filled. Total number of delete transactions	9	9(9)
		applied during update process.		
51	59	INVALID TRANSACTIONS	9	9(9)
31	39	Numeric, right justified, zero filled.	9	9(9)
60	68	EXPIRED RECORDS	9	9(9)
60	00	Numeric, right justified, zero filled. Total number of records over 3 years old	9	9(9)
		that were purged from the master file during update process.		
69	77	MASTER FILE OUTPUT	9	9(9)
00	1''	Numeric, right justified, zero filled. Total number of records on the OUTPUT	J	3(3)
		master file.		
78	86	INDIVIDUAL MOVES	9	9(9)
. •		Numeric, right justified, zero filled. Total number of records on the master file		(0)
		with move type "I" (Individual).		
87	95	FAMILY MOVES	9	9(9)
-		Numeric, right justified, zero filled. Total number of records on the master file		-(-/
		with move type "F" (Family).		
96	104	BUSINESS MOVES	9	9(9)
		Numeric, right justified, zero filled. Total number of records on the master file		
		with move type "B" (Business).		

Note: This file shall be submitted in standard ASCII text format. The file shall be named using "U," the 3 character code assigned by the NCSC with the month, year and an extension of the weekly transaction number. (e.g. UNAA1297.300)



TEST CLIENT FILES (AUDIT)

MEDIA DEFINITION

	TAPE	CARTRIDGE
DENSITY	6250	38K
FORMAT	EBCDIC	EBCDIC
LABELS	NONE	NONE
RECORD LENGTH	650	650
BLOCKSIZE	32500	32500

INTERNET DEFINITION

FORMAT	ASCII
RECORD LENGTH	652

TEST CLIENT INPUT FILE HEADER RECORD INTERNET PROCESSING ONLY

RECORD	POSITION			
FROM	TO	FIELD NAME	LENGTH	COBOL
1	4	CUSTOMER ID	4	X(4)
5	7	CUSTOMER ABBREVIATION	3	9(3)
8	8	TYPE	1	9(1)
9	14	FILLER	6	9(6)
15	15	TRANSACTION CODE	1	X(1)
16	23	FILE DATE	8	9(8)
24	28	FILLER – Includes CRLF at end	184	X(184)

TEST CLIENT INPUT FILE DETAIL RECORD

RECORD	POSITION	EIELD MANE	LENGTH	00001
FROM	TO	FIELD NAME	LENGTH	COBOL
1	28	CUSTOMER KEY	28	X(28)
29	78	CUSTOMER NAME	50	X(50)
79	108	CUSTOMER OPTIONAL ADDRESS	30	X(30)
119	136	CUSTOMER URBANIZATION NAME	28	X(28)
137	176	CUSTOMER ADDRESS	40	X(40)
177	210	CUSTOMER LAST LINE	34	X(34)
211	212	CRLF FOR INTERNET USE ONLY	2	X(2)

TEST CLIENT OUTPUT FILEHEADER RECORD INTERNET PROCESSING ONLY

RECORD	POSITION			
FROM	ТО	FIELD NAME	LENGTH	COBOL
1	4	CUSTOMER ID	4	X(4)
5	7	CUSTOMER ABBREVIATION	3	9(3)
8	8	TYPE	1	9(1)
9	14	FILLER	6	9(6)
15	15	TRANSACTION CODE	1	X(1)
16	23	FILE DATE	8	9(8)
24	28	FILLER – Includes CRLF at end	624	X(624)

TEST CLIENT OUTPUT FILE DETAIL RECORD

RECORD	POSITION			
FROM	ТО	FIELD NAME	LENGTH	COBOL
1	28	CUSTOMER KEY	28	X(28)
29	78	CUSTOMER NAME	50	X(50)
79	108	CUSTOMER OPT ADDRESS	30	X(30)
109	136	CUSTOMER URBANIZATION NAME	28	X(28)
137	176	CUSTOMER ADDRESS	40	X(40)
177	210	CUSTOMER LAST LINE	34	X(34)
211	238	STANDARDIZED URBANIZATION NAME	28	X(28)
239	302	STANDARDIZED DELIVERY ADDRESS LINE	64	X(64)
303	330	STANDARDIZED CITY	28	X(28)
331	332	STANDARDIZED STATE	2	X(02)
333	337	STANDARDIZED ZIP CODE	5	X(05)
338	341	STANDARDIZED PLUS 4 CODE	4	X(04)
342	344	STANDARDIZED DPBC	3	X(03)
345	348	STANDARDIZED CRIS	4	X(04)
349	376	NEW URBANIZATION NAME	28	X(28)
377	440	NEW DELIVERY ADDRESS LINE	64	X(64)
441	468	NEW CITY	28	X(28)
469	470	NEW STATE	2	X(02)
471	475	NEW ZIP CODE	5	X(05)
476	479	NEW PLUS 4 CODE	4	X(04)
480	482	NEW DPBC	3	X(03)
483	486	NEW CRIS	4	X(04)
487	487	NEW MATCH LEVEL	1	X(01)
488	493	MOVE EFFECTIVE DATE	6	X(06)
494	494	MOVE TYPE	1	X(01)
495	495	NCOA DELIVERABILITY CODE	1	X(01)
496	496	NCOA FOREIGN FLAG	1	X(01)
497	522	NIXIE/RETURN CODE(S)	26	X(26)
523	550	PARSED URBANIZATION NAME	28	X(28)
551	560	PARSED PRIMARY NUMBER	10	X(10)
561	562	PARSED PRE-DIRECTIONAL	2	X(02)
563	590	PARSED PRIMARY NAME	28	X(28)
591	594	PARSED SUFFIX	4	X(04)
595	596	PARSED POST-DIRECTIONAL	2	X(02)
597	600	PARSED UNIT DESIGNATOR	4	X(04)
601	608	PARSED SECONDARY NUMBER	8	X(08)
609	609	DMA SUPPRESSION FLAG	1	X(01)
610	650	FOR FUTURE USE	41	X(41)
651	652	CRLF FOR INTERNET USE ONLY	2	X(02)

LACS MONTHLY CUSTOMER SERVICE LOG USE THIS LAYOUT FOR LACS CSL REPORTS FROM 01/02 TO PRESENT (page 1 of 1)

RECORD FROM	POSITION TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
	_	CEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILLED **		00202
4	Ιο	OLIOTOMED ID		V(0)
1	8	CUSTOMER ID Alpha. NCOA Customer Processing Acknowledgment Form ID, when available.	8	X(8)
9	38	COMPANY NAME	30	X(30)
J		Alphanumeric. Company name must be true and actual name on licensee record.		λ(50)
39	39	ADDITIONAL NOTES The literal "A" in this field denotes that customer provided written request for longer processing period.	1	X(1)
40	44	FILLER Reserved for future use.	5	X(5)
45	52	DATE ADDRESS FILE RECEIVED Numeric. Format: CCYYMMDD	8	9(8)
53	60	DATE LACS PROCESSING COMPLETED Numeric. Format: CCYYMMDD	8	9(8)
61	62	TOTAL PROCESSING DAYS Numeric, right justified, zero filled.	2	9(2)
63	73	TOTAL NUMBER OF RECORDS PROCESSED Numeric, right justified, zero filled.	11	9(11)
74	84	TOTAL NUMBER OF RECORDS MATCHED Numeric, right justified, zero filled.	11	9(11)
85	95	TOTAL NUMBER OF RECORDS ZIP+4 CODED Numeric, right justified, zero filled.	11	9(11)
96	96	FILLER	1	X(1)
		ZIP+4 MATCH STATISTICS		
97	107	Total matched to PO box record	11	9(11)
108	118	Total matched to highway contract record with box number	11	9(11)
119	129	Total matched to rural route default	11	9(11)
130	140	Total matched to firm record	11	9(11)
141	151	Total matched to general delivery	11	9(11)
152	162	Total matched to building/highrise	11	9(11)
163	173	Total matched to military zip default	11	9(11)
174	184	Total matched to non-deliverable	11	9(11)
185	195	Total matched to rural route with box number	11	9(11)
196	206	Total matched to street record	11	9(11)
207	217	Total matched to other	11	9(11)
218	228	EWS - No Match Count	11	9(11)
		LACS MATCHES BY RECORD TYPE		
229	239	'02' RR/HC W/BOX TO STREET-TYPE - SPLIT Total number of matches with LACS record type '02'	11	9(11)
240	250	'03' STREET-TYPE TO STREET-TYPE – SPLIT Total number of matches with LACS record type '03'	11	9(11)
251	261	'05' RR/HC W/BOX TO STREET-TYPE Total number of matches with LACS record type '05'	11	9(11)
262	272	'07' STREET-TYPE TO STREET-TYPE Total number of matches with LACS record type '07'	11	9(11)
273	283	'08' RR/HC W/O BOX TO STREET-TYPE Total number of matches with LACS record type '08'	11	9(11)

Note: This file shall be submitted in standard ASCII text format. The file shall be named using "L," the 3 character code assigned by the NCSC with the month, year and an extension of DAT. (e.g. LNAA1297.DAT)

LACS UPDATE STATISTICS
USE THIS LAYOUT FOR THIS REPORT FROM 10/98 TO PRESENT (page 1 of 1)

RECORD	POSITION	pago For T		
FROM	ТО	FIELD NAME and DESCRIPTION	LENGTH	COBOL
	** [EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILLED	**	
1	3	LICENSEE ID Alpha. The 3 character code assigned by the NCSC.	3	X(3)
4	6	RELEASE NUMBER Numeric. The three-digit release number corresponding to the current update.	3	9(3)
7	14	PROCESS DATE Numeric, format CCYYMMDD. Date update successfully loaded.	8	9(8)
15	23	TOTAL RECORDS Numeric, right justified, zero filled. Total number of records on the new LACS file.	9	9(9)
24	32	RECORD TYPE 02 Numeric, right justified, zero filled. Total number of type '02' records.	9	9(9)
33	41	RECORD TYPE 03 Numeric, right justified, zero filled. Total number of type '03' records.	9	9(9)
42	50	RECORD TYPE 05 Numeric, right justified, zero filled. Total number of type '05' records file.	9	9(9)
51	59	RECORD TYPE 07 Numeric, right justified, zero filled. Total number of type '07' records.	9	9(9)
60	68	RECORD TYPE 08 Numeric, right justified, zero filled. Total number of type '08' records.	9	9(9)

Note: This file shall be submitted in standard ASCII text format. The file shall be named using "S," the 3 character code assigned by the NCSC with the month, year and an extension of DAT. (e.g. SNAA1297.DAT)

APPENDIX B

NCOA SPECIFICATIONS



OVERVIEW

The NCOA concept consolidates all Change of Address (COA) information into a single, centralized computer database. The NCOA file, built and currently maintained by a USPS contractor will be made available, along with subsequent periodic updates, to a competitively selected group of licensees who, in turn, will offer NCOA (name and address) matching services to the mailing industry.

NCOA matching logic, similar to ZIP+4, was developed and tested under USPS direction. It provides matches with a high degree of accuracy, a fact which has been demonstrated through a series of testing and analysis efforts of a Task Force made up of several mailers and service bureaus.

NCOA matching software adheres to specific USPS directions regarding NCOA services as well as to the following matching rules and specifications. Although each licensee will be allowed to develop his own, or modify already existing software, the failure to adhere to these matching rules on a consistent basis may be cause for the licensee to be disqualified from receiving subsequent NCOA file updates, and from providing the NCOA service.

SPECIFICATIONS

Following is a list of the matching specifications which were developed and approved by the USPS during the prototype testing phase:

1. Compare street name and measure degree of matching. The prototype used the same requirements for matching as in the USPS ZIP+4 system. The technique is one of producing numerical weight and penalty figures which represent the degree of similarity and difference between the name on the NCOA file and that on the inquiry. The response is basically the record(s) with the highest weight and lowest penalty.

2. Primary Number Check

- A. House number check If both addresses have a house number, they must match. If only one of the addresses has a house number and the other doesn't, it is not a match.
- B. P.O. Box number check If both addresses represent a P.O. Box address, the box numbers must equal. If only one of the addresses has a box number and the other doesn't, it is not a match.
- C. Rural/Highway Contract Route Check If both addresses represent Rural Route addresses or if both represent Highway Contract addresses, both the route and/or box numbers must equal. Upon comparison of a customer input record to the NCOA file candidate record, if one address when compared to the other is missing route or box number no match can be made. If no primary number exists for either of these type addresses on the NCOA file (box number) and no box number is present on the customer input record, then individual name matching logic is required to make a match.
- D. General Delivery check If the NCOA old side address represents a General Delivery address, and the input address represents a General Delivery address, then individual name matching logic is required to make a match.

- E. Highrise Default check If the NCOA old side address is a highrise address and contains no secondary number (level of match code 'L') and the input address contains no secondary information, then individual name matching logic is required to make a match.
- 3. Unit Designator Value If either address has a Unit Designator Value, a match will be accepted or rejected on the following:

If both addresses have a Unit Designator Value, they must equal.

Exception is a transposed alphanumeric Unit Designator Value. Ex. 7J is equal to J7.

If only one of the addresses has a Unit Designator Value and the other does not, it is not a match. (Exception noted in paragraph 5 below.)

4. Unit Designator - If either address has a non-exceptional unit designator, a match will be accepted or rejected on the following:

If both addresses contain the same non-exceptional unit designator, it can be accepted as a match.

Example: NCOA File: 123 MAIN ST APT 2

Input Address: 123 MAIN ST APT 2

Match - Return New Address

If the NCOA master file record contains a different non-exceptional unit designator than the input address, it can be accepted as a match.

Example: NCOA File 123 MAIN ST APT 2

Input file 123 MAIN ST STE 2

Match - Return New Address

If both addresses contain exceptional unit designators without a unit designator value, a match will be accepted or rejected based on the following:

If both addresses have exceptional unit designators without a unit designator value, they must equal. If not, reject the match.

Example 1 123 MAIN ST BSMT

123 MAIN ST REAR

No Match

Example 2 123 MAIN ST FRNT

123 MAIN ST FRNT

Match - Return New Address

If both addresses contain exceptional unit designators with a unit designator value, a match will be accepted or rejected based on the following:

If both addresses have the same exceptional unit designator with the same unit designator value, a match will be accepted.

Example 1	NCOA File	123 MAIN ST	SIDE 1
·	Input File	123 MAIN ST	SIDE 1
	Match - Retu	ırn New Address	

If both addresses have unequal exceptional unit designators but the same unit designator value, a match will be accepted.

Example 1	NCOA File	123 MAIN ST	SIDE 1
•	Input File	123 MAIN ST	REAR 1
	Match - Retu		

If both addresses have either unequal unit designators or equal unit designators but the unit designator values are unequal, reject the match.

Example 1	NCOA File Input File No Match	123 MAIN ST 123 MAIN ST	BSMT 1 SIDE 2
Example 2	NCOA File Input File No Match	123 MAIN ST 123 MAIN ST	BSMT 1 BSMT 2

- 5. If the NCOA old side address is a street record (level of match 'S') and either the input or the NCOA record contains secondary information while the other does not, a match may be made using individual name matching logic.
- 6. Compare last name and measure degree of matching. This can be accomplished using the technique under paragraph 1, above.
- 7. Name Parse Since customer files have different arrangements of the name field, an option shall be added to indicate name order. The name field can be last name first or first name first. (This will allow an accurate decision in situations where the name field contains two given names. Ex. Grant Lee or Lee Grant.)
 - On hyphenated last names, test if one of the names is a title, example: Brown-Esq.
- 8. Last Names with Prefixes Making last names with prefixes look the same for comparison. Example: O'Neill to ONeill.
- 9. On a family move, do not compare the first names.
- 10. First names will be compared only on Individual moves. (Individual move flag set on the NCOA record.)

Both addresses must have a first name or no match can be made.

No match will be made if either file carries a first name initial only.

- 11. Middle names or initials will be compared on an Individual move only when present on both addresses.
 - If the middle name is fully spelled out on both addresses, they must equal or no match can be made.
 - If either address has a middle initial, it must equal the first letter of the middle name found on the opposite address, or no match can be made.
- 12. Nickname Table Because of first name matching policy on an individual move, develop logic to handle nicknames. The logic should be able to make a match between a nickname and its associated given name. Example: Bob-Robert; Liz-Elizabeth.
- 13. Individual Match Rule In a multiple response situation, an Individual record that meets all policy requirements should be matched over a Family record.
- 14. Female Title Logic If the inquiry has a female title and it matches to a male individual record, reject the match.
- 15. Individual Match Logic An NCOA licensee when requested by the customer may apply individual match logic for all comparisons. <u>Under no circumstances</u> may an NCOA licensee apply family move matching logic to individual change-of-address records.
- 16. Firm name matching If the potential record for matching is a firm name, use a compare or weighing logic similar to that used for street names, suffixes, pre-post directionals, etc. (as in #1 above).
- 17. Puerto Rican Addresses Since one address can occur in multiple urbanization areas, additional NCOA matching criteria will be required:
 - A. If an input Puerto Rican address, as a result of the ZIP+4 Coding process, does not contain a ZIP+4 Code, no NCOA match can be made.
 - B. If an input Puerto Rican address, as a result of the ZIP+4 Coding process, does contain a ZIP+4 Code, an NCOA match can be attempted.
 - C. When all address matching requirements specified in Appendix B of the NCOA Licensing Agreement are satisfied, an address match to the NCOA candidate record can occur only when the input ZIP+4 Code matches exactly to the ZIP+4 Code represented in the NCOA candidate record.

NCOA SPECIFICATIONS

The licensee shall develop a retrieval system that will be used to provide change of address information for customer address files.

The major input will be the National Change of Address file. The National Change of Address (NCOA) file will contain records representing all the permanent change of address cards filed with the USPS by postal customers. Each record contains the postal customer name, old delivery address line, old city, state and ZIP+4 Code, new delivery address line, city, state, ZIP+4 Code and Delivery Point Code information. On each record there is a move type that indicates whether the record represents a family, firm or individual move. In addition to the postal customer's name and old address information, the move type field will be used to dictate the matching policies to be exercised.

In the following description, whenever a reference is made to the NCOA address, we are referring to the old address portion of the NCOA record. The parsed address or parsed record will refer to the customer record that is being processed.

The software shall accept the customer city name, state name and ZIP Code and shall determine the portion of the National Change of Address file that contains the required information.

The software shall employ parsing and matching techniques to match the correct NCOA records to customer records.

I. Identify/Parse Address and Name Component

Parsing an address means breaking an address into components. During the matching process, parsing ensures the best possible match of customer addresses to the NCOA. Separate the individual components of the address based on spaces, commas, periods, colons and other delimiters. Components that must be identified are street name, suffix, pre-direction, post-direction, unit designator, unit designator value, house number, building name, city name, state, ZIP Code, route number, box number and Post Office box number. Each component parsed will dictate the matching policy to be performed.

By using the suffix table provided in the ZIP+4 National Directory Technical Guide and expanding it to include directionals, rural route keywords, PO Box Keywords, and apartment or unit designator keywords, rules can be created to identify address components. Comparing each address component to each table entry will allow most components to be identified.

Example:

If the first component of a delivery line contains numeric characters, it is the house number. If a 2 digit number follows the rural route keyword, it is the route number. If an unidentified alphanumeric component follows a PO Box keyword it is the PO Box number.

Address Com	ponents	<u> </u>	<u>Identification</u>
Route 2			Rural route keyword (table entry) Route number (1 or 2 digit number following a route keyword)
РО	Вох	100A	PO box keyword (table entry) PO box keyword (table entry) PO box number (unidentified component following a PO box keyword)

If there is a group of unidentified components (not preceded by rural route keyword, PO box keyword or unit designator), it is identified as the primary street name.

Address Components	Identification
100B So Brown Av	House number (first may contain alphanumerics) Directional (table entry) Primary Street name (unidentified component) Suffix (table entry)

For parsing the last line (city, state and ZIP Code), identify the components from right to left. If the last component in the line is a 5 digit numerical word, it is parsed and identified as the ZIP Code. Examine the preceding words to determine if they represent a state name or abbreviation. After the state and ZIP Code are identified, the city name will be the remaining left justified component.

When parsing unit designator values (apartment, suites, etc.) consider that many customer files will not contain any preceding keywords or symbols.

Example: 100 Brown 30

In this example, 30 is a unit designator value even though it is not preceded by a unit designator or "#."

Separate the individual components of the name based on spaces, commas, periods, colons and other delimiters. Components that must be identified are last name, first name (or initial), middle name (or initial), firm/company name, and titles. The name parse should be set up to allow the customer to indicate the order of the name field. The order will be either last name, first name or first name, last name.

By developing a table of given names, common last names, titles, and common company keywords, the parsed components can be identified. It is recommended that gender code be identified in the table for each given name and title.

When parsing last names, consider last names that have prefixes:

Example: McDonald, O'Neil

II. Indexing Key

After the components have been identified or parsed, a key should be developed so that the address comparison or matching process can be performed against the appropriate section of the NCOA file. Without a key, the alternative is to compare the address against the entire file.

Key Building

In order to locate the potential responses on the National Change of Address file, a key or matching code must be developed to access those records.

Sample Key:

5 digit ZIP Code or PO Finance Number Phonetic or Soundex code for primary street name Primary number (house number) First letter of last name

III. Address Matching Policy

After the addresses are parsed and have been assigned a key or match code, all potential NCOA records must be examined. There are 4 basic address types: Route records, PO Box records, street address records, and General Delivery records. The following section describes the matching policy to follow to select the best response:

A. Route Matching

When a keyword for rural route has been identified, the Rural Route policies must be followed:

All records from the NCOA file for a specific route number must be examined to ensure selecting the correct NCOA record.

If the parsed route number is not the same as the route number of the NCOA record, it is not a possible response.

If a box number was parsed in addition to the route number, it must match the box number of the NCOA record.

Any NCOA record that passes the rural route matching policy is a potential response and must be passed through the name matching logic. If the addresses compared consist only of Route number, then individual name matching logic is required to make a match.

B. Post Office Box Matching

When a keyword for a Post Office box is detected, the following policies must be followed to select the correct NCOA record:

The PO box number from the parsed address must be equal to PO box number of the NCOA record. Any NCOA record that passes the Post Office box matching policy is a potential response and must be passed through the name matching logic.

C. Street Matching

When the address parse process identifies components such as house number, pre-direction, street name, suffix, post-direction, apartment number, or apartment building/firm, the following policies must be followed to select the correct NCOA record:

The house number parsed must equal the house number on the NCOA record. If either the parsed record or the NCOA record does not contain a house number, it is not a possible response.

The primary street name as parsed must be compared to the primary street name on the NCOA record. A method of evaluating the similarity or "closeness" between two fields of data should be developed.

The methods used should consider the following possibilities in the address:

- 1. Incorrect or missing suffixes. Standardize all suffixes to the official USPS abbreviations before comparing.
- 2. Incorrect, missing or transposed directionals. Standardize directionals to the common abbreviations before comparing.
- 3. Misspelled street names. Phonetic or soundex codes, a system of speech sounds as opposed to precise spelling, should be employed. A possible method of evaluating similarities is to develop a weighting system. The types of compares can be categorized into two areas:
 - a. Variable area-primary street or firm name
 - b. Fixed area suffix and directionals.

For evaluating the variable areas (primary street name on the inquiry to the primary street name of the NCOA record), consider transpositions and numbers of like characters.

Example:

The following calculation will generate a number which can be used to measure similarity (weight) or difference (penalty).

Weight =
$$500 * [(C/L1) + (C/L2) + ((C - TR) / C)]$$

Penalty = $20 * [((L1 - C)/L1) + ((L2 - C)/L2) + (TR/C)]$

C = Number of matched letters in one name

TR = Number of transpositions

L1 = Length of Name 1

L2 = Length of Name 2

"C" is figured by counting the number of letters which match between the two components (street name from NCOA and the parsed street name). Each letter in one component is compared to each letter within the search range in the other component. The search range is defined as the current letter's position plus or minus "N." "N" is calculated by taking the longest of the two components, divide it by 2, truncate to a whole number and subtract 1.

The number of transpositions is calculated by comparing the matched letter in one component to the matched letters in the other component, one set at a time. (The first matched letter in component 1 is compared to the first matched letter in component 2, etc.) The number of differences is divided by 2 to give the number of transpositions.

Component 1. ABCDEFGH

Component 2. DBCEFFHAG

In the above sample N = 3, C = 7 and TR = 2.5

With the fixed compares, be sure the parsed components are standardized to the guidelines in the ZIP+4 National Directory Technical Guide. Since the components (suffix and directionals) are standardized, a literal compare can be made between the inquiry and the potential NCOA record.

4. Unit designator values. If the unit designator value of the parsed record does not match the unit designator value of the NCOA record, the record is not a possible response. If the parsed record has a unit designator value and the NCOA record does not, the NCOA record is kept as a potential match. If the parsed record does not contain a unit designator value and the NCOA record does, the NCOA record presents a non-match situation.

When comparing unit designator values, remove extraneous punctuation such as "-", "/" or "*". Perform a literal compare on the values with one exception. If there is a single alpha character at the front or back of the number, a match can be made if the ranges are equal after the character is swapped.

Example: A32 = 32A, K312 = 312K

Any NCOA record which passes the Street matching policy is a potential response and must be passed through the name matching logic.

D. General Delivery Matching

When a keyword for a General Delivery Address is identified, the following policies must be followed to select the correct NCOA record:

The keyword for General Delivery from the primary name field of the parsed address must equal the Primary Name field of the NCOA record. (There will be no primary number for General Delivery Addresses.) Any NCOA record which passes the General Delivery Matching Policy is a potential response and must be passed through the Name Matching logic.

After the address matching policies (above) have been performed and there are potential responses, a hierarchy of name matching policies takes place. The process depends on the components of the parsed address and move type of each potential NCOA record.

IV. Name Matching Policy

NCOA Match Footnote codes shall be provided for customer input records which meet NCOA matching requirements but contain differences when compared to the NCOA record. The following is a list of the valid match codes:

A – NCOA Match

The input record matched to a NCOA master file record using the current NCOA rules. A new address could be furnished.

A1 – NCOA Match – Middle Name/Initial Not Present

An NCOA match was made using current NCOA rules; however, one of the records contains a complete middle name or initial, and the other record does not contain a middle name or middle name initial.

A2 – NCOA Match – Matched Full Middle Name To Initial

An NCOA match was made using current NCOA rules; however, one record contains a complete first and middle name, and the other record contains a complete first name and middle initial only.

A3 – NCOA Match – Matched Full First Name To Initial

An NCOA match was made using current NCOA rules; however, one record contains a complete first and middle name, and the other record contains a complete first name initial only and a complete middle name.

A4 – NCOA Match – Family Move, First/Middle Different

An NCOA match was made using current NCOA rules for standard matching. Both records contain the same last name; however, the first names or initials and the middle names or initials on the NCOA file and the customer record do not match.

Move Types and the associated name matching logic are:

A Firm Matching

If the potential NCOA record is a firm type, the parsed name field must be compared to the NCOA name field. Use the same evaluation technique as used in the primary name compare.

If the requirements of the firm matching policies are met and there are no other potential responses, the NCOA record is selected as the correct response.

B. Family Matching

If the potential NCOA record is a family move type, the parsed last name field must be compared to the last name of the NCOA record. Use the same evaluation technique as used in the primary street name (exclude suffix and directional compares). If the requirements of the family matching policies are met and there are no other potential responses, it is returned as the correct NCOA record.

The footnote A4 shall be returned for matches to family move records with first and/or middle name/initial differences.

Exa	m	nl	Δ.
\mathbf{L}		νı	c.

Input Record	NCOA file	Match Footnote		
Cindy Jones	Mary Jones	A4		
John J Jones	Mary Jones	A4		

C. Individual Matching

If the potential NCOA record is an individual move type, the parsed last name field must be compared to the last name of the NCOA record. Use the same evaluation technique as used in the primary street name (exclude suffix and directional compares). If the requirements of the name evaluation are met, the first name policies are performed. If the requirements of the name evaluation are not met, the record is not a possible response.

On an individual record, the first name logic must be exercised. On an individual move, initials only cannot be considered a match. At least one full name (either first or middle) must be a fully spelled and must match on both the customer and the NCOA file.

On an individual move, if either the parsed customer record or the NCOA record does not contain a first name, the NCOA record cannot be considered as a possible response.

The following is a table of valid and invalid name match combinations (and related match codes):

	Cindy Mary	Cindy M	Cindy	C Mary	CM	С	Cindy Lou	Mary
Cindy Mary	Α	A2	A1	A3	nm	nm	nm	nm
Cindy M	A2	Α	A1	nm	nm	nm	nm	nm
Cindy	A1	A1	Α	nm	nm	nm	A1	nm
C Mary	A3	nm	nm	Α	nm	nm	nm	nm
CM	*nm	nm	nm	nm	nm	nm	nm	nm
С	nm	nm	nm	nm	nm	nm	nm	nm
Cindy Lou	nm	nm	A1	nm	nm	nm	Α	nm

^{*}nm=no match

The first name policy must also handle nicknames. There are many nicknames which refer and should match to given names. A table should be developed to handle the comparison.

Example: Bob = Robert; Marg = Margaret

Two categories of titles should be considered: 1) Professional titles (MD, ATTY, CPA, etc.), and 2) "Genetic" titles (Sr., Jr., I, II, III, etc.). If a title was identified on the parsed record, it must be considered in the individual matching policies. A feminine title on the parsed record cannot match a masculine name or title on the NCOA record. In addition, when a parsed record contains a "genetic" name suffix title such as Jr., Sr., I, II, III, etc., an NCOA match can be made only if the candidate record on the NCOA file contains exactly the same name suffix title as the parsed record.

If either the parsed record or the NCOA record contain a professional suffix title such as ATTY, CPA, MD, RN, SSGT, etc., an NCOA match can be made to a record that does not contain a professional suffix title, all other individual matching rules being satisfied.

If the parsed record does not contain a suffix title but the candidate NCOA record does, an NCOA match can be made if the title is a professional title (ATTY, CPA, RN, etc.). Under no circumstances can a parsed record without a genetic title (Jr., Sr., I, II, III, etc.) be matched to an NCOA record that contains such a title.

The following table contains examples of valid and invalid name matching combinations:

CUSTOMER FILE	NCOA FILE	MATCH
Mrs. William Brown	William Brown	No
John Jones Jr	John Jones Sr	No
William Smith Jr	William Smith	No
Robert Smith	Robert Smith Sr	No
David Bell Atty	David Bell	Yes
David Bell	David Bell Atty	Yes
Joseph Jones Jr	Joseph Jones Atty	No
Dr David Smith	David Smith	Yes
William Jones	Lt Col William Jones	Yes

Examples:

PARSED RECORD	NCOA FILE
Mrs. William Smith	William Smith
100 Brown St	100 Brown St
Taylor NE 6811	Taylor NE 68111
	(individual move)

In the previous example, the parsed record will not match the individual NCOA record. Even though the basic street matching policies, last name matching policies and first name matching policies pass, the record here represents a single individual. The title in the parsed record indicates a female gender and the NCOA represents a male gender.

Example:

Joe Smith, Jr will not match to Joe Smith, Sr. If there is a single response that makes it through the above individual matching policies, it is passed as the correct NCOA record.

D. After all policies have been exercised, there is a possibility that multiple responses remain. If so, follow these policies to determine if the NCOA information can be returned for that passed record:

If there is only one individual move record in the group, it is returned as the correct NCOA response. An individual move that meets all matching policies takes priority over family move records.

If all NCOA responses have the same new "move to" address, return the NCOA record with the most recent effective date as the correct NCOA response.

V. Return NCOA Data

When a single response is selected as the correct NCOA response, the new "move to" address information, the move type flag (family, firm, or individual) will be returned with the new move to address information.

HIGHWAY CONTRACT KEYWORD

Keyword	Standardized Spelling
HC	HC
HC	HC
HC ROUTE	HC
HC RTE	HC
HCR	HC
HIGHWAY CONTRACT	HC
HWY CONTRACT	HC
STAR RTE	HC
STAR RT	HC
STAR ROUTE	HC

RURAL ROUTE KEYWORD

Keyword	Standardized Spelling
RR	RR
ROUTE	RR
RUR RTE	RR
RR	RR
RTE	RR
RURAL ROUTE	RR
RURAL RTE	RR
R RT	RR
RFD	RR
RFD	RR
R D	RR
RT	RR
RURAL	RR
R ROUTE	RR
RURAL R	RR
R RTE	RR
RURAL RT	RR

GENERAL DELIVERY KEYWORDS

<u>Keyword</u>	Standardized Spelling
GEN DEL	GENERAL DELIVERY
G. DEL	GENERAL DELIVERY
G DELIVERY	GENERAL DELIVERY
GEN. DEL.	GENERAL DELIVERY
GEN DEL.	GENERAL DELIVERY
GENDEL	GENERAL DELIVERY
GENERAL DEL.	GENERAL DELIVERY
GEN DELIVERY	GENERAL DELIVERY
GENERAL DELIVER	GENERAL DELIVERY
GENERAL DELIV	GENERAL DELIVERY
G DEL	GENERAL DELIVERY
GEN DLVRY	GENERAL DELIVERY
GENERAL DLVR	GENERAL DELIVERY
GENERAL DLV	GENERAL DELIVERY
GENERAL DL	GENERAL DELIVERY
GENERAL DELV	GENERAL DELIVERY
GENERAL DE	GENERAL DELIVERY
GEN DELIVE	GENERAL DELIVERY
GEN DELIV	GENERAL DELIVERY

P O BOX KEYWORDS

Keyword	Standardized Spelling
P O BOX	PO BOX
POB	PO BOX
POBX	PO BOX
PO DRAWER	PO BOX
PO BOX	PO BOX
PO BX	PO BOX
PO DRAWER	PO BOX
POB	PO BOX
POBOX	PO BOX
PODRAWER	PO BOX
POST OFFICE BOX	PO BOX
BOX	PO BOX
BX	PO BOX
P. O. B.	PO BOX
P.O.B.	PO BOX
POBX	PO BOX
P O BOXX	PO BOX
P.O. BOXX	PO BOX
PO BOXX	PO BOX
PO BO	PO BOX
P.O.BO	PO BOX
PO BOC	PO BOX
PO BXO	PO BOX
PO DRAW	PO BOX
LOCKBOX	PO BOX
LOCK BOX	PO BOX
DRAWER	PO BOX
BIN	PO BOX
CALLER	PO BOX
FIRM CALLER	PO BOX



APPENDIX C

ZIP+4 CODE SPECIFICATIONS

NOTE: For most current ZIP+4 Matching Requirements, contact the Coding Accuracy Support System Department at the National Customer Support Center at 800-238-3150.



OVERVIEW

The Postal Service must provide the best possible ZIP+4 code data to all of its mailing customers. This data is contained in the ZIP+4 National Directory, and is part of a larger ZIP+4 coding "System." This system combines the knowledge of Address Information System (AIS) Units, the mechanics of the optical character reader (OCR), the intricacies of the matching software, and the needs of mailing customers.

The matching software attempts to attain the most specific ZIP+4 match possible. If a firm has been given a code, a match to that code is best. If there is not a specific code for a firm, but the firm is in a building which has a code, then a code for that apartment or building is acceptable. Similarly, rural default records are provided for rural addresses which have a rural route number, but no box number.

CRITERIA FOR DETERMINING MATCHES

Customer addresses are matched to the ZIP+4 National Directory by using a set of criteria. The criteria are built into the matching software computer logic. The ultimate goal of the matching software is to provide a correct ZIP+4. If the software cannot provide the correct ZIP+4, acceptable and unacceptable alternatives are possible.

Acceptable alternatives include:

- A correct ZIP+4 code
- A correct ZIP Code (5 digits only) but no +4 code
- No ZIP Code (5 digit or +4)

Unacceptable alternatives include:

- A correct 5 digit ZIP Code with an incorrect +4 code
- A 5 digit ZIP Code with a correct 3 digit prefix and an incorrect 2 digit suffix
- A 5 digit ZIP Code with an incorrect 3 digit prefix

By adhering to stringent parsing rules and examining in-depth the ZIP+4 National directory file, the ZIP match software strives for the best ZIP+4 match by searching for matches in primary and secondary ranges and by looking at all available address records.

ZIP + 4 SPECIFICATIONS

The licensee shall employ a retrieval system to be used to provide nine-digit ZIP Codes to customer address files. Two major files are required as input:

- 1. ZIP + 4 National Directory File Provided by USPS on a monthly basis.
- City/State file Provided by USPS on a monthly basis.

The software shall be capable of responding with the most specific ZIP + 4 Code to requests for post office box, rural route, street addresses and firm/apartment information.

It shall employ a parsing process that will identify key words and key components of the address. A series of matching policies must be followed to ensure the assignment of the most specific ZIP + 4 Code.

I. Identify/Parse Address and Name Components

Parsing an address means breaking an address into components. During the matching process, parsing ensures the best possible match of customer addresses to the ZIP + 4 National Directory address file.

Separate the individual components of the address based on spaces, commas, periods, colons and other delimiters. Components that must be identified are street name, suffix, pre-direction, post-direction, unit designator, unit designator value (i.e., previously known as secondary number), house number, firm name, building name, city name, state, ZIP Code, route number, box number and post office box number. Each component parsed dictates the matching policy to be performed.

By using the suffix table provided in the <u>ZIP + 4 National Directory Technical Guide</u> and expanding it to include directionals, rural route, keywords, post office box keywords and apartment or unit designator keywords, rules can be created to identify address components. Comparing each address component to each table entry will allow most components to be identified.

Example:

If the first component of a delivery line contains numeric characters, it is the house number. If a two-digit number follows the rural route keyword, it is the route number. If an unidentified alpha-numeric component follows a post office box keyword, it is the post office box number.

Address Components Identification

Route Rural route keyword (table entry) 2

Route number (1 or 2-digit number

following a route keyword)

PO PO box keyword (table entry)

Box PO box keyword (table entry)

> 100a PO box number (unidentified

> > component following a PO box

keyword)

If there is a group of unidentified components (not preceded by a rural route keyword, PO box keyword or unit designator), it is identified as the primary street name.

Address Components Identification

100B House number (first component,

> contains numerics) Directional (table entry)

So Brown

Primary Street name (unidentified

component)

Suffix (table entry) Αv

For parsing the last line (city, state and ZIP Code), identify the components from right to left. If the last component in the list is a 5-digit numerical word, it is parsed and identified as the ZIP Examine the preceding words to determine if they represent a state name or Code. abbreviation. After the state and ZIP Code are identified, the city name will be the remaining left justified component.

II. Indexing Key

After the components have been identified or parsed, a key should be developed so that the address comparison or matching process can be performed against the appropriate section of the National Directory File. Without a key, the alternative is to compare the address against the entire file.

Key Building

In order to locate the potential responses on the National Directory file, a key or match code must be developed to access those records.

Sample Key

5-digit ZIP Code or PO finance number Phonetic or Soundex code for primary street name Primary number (house number)

III. Address Matching Policy

After the addresses are parsed and have been assigned a key or match code, all potential National Directory records must be examined. There are three basic address types: Route records, PO box records and street address records. The following sections describe the matching policy to follow to select the best response:

A. Route Matching (Record Type 18)

When a keyword for rural route has been identified, the rural route policies must be followed.

All records from the National Directory File for a specific route number must be examined to ensure assigning the most specific ZIP+4 code.

If the parsed route number is not the same as the route number of the National Directory record, it is not a possible response.

If a rural box number was parsed in addition to the route number, a box number compare should be performed. If the parsed box number falls between the primary low and high ranges of only one National Directory record, the record will be selected as the most specific response.

If a box number was parsed and there are multiple records into which the box field fits, a response can only be returned if all the potential records have the same ZIP+4 code.

There are three situations where a specific ZIP+4 code cannot be returned on a route inquiry. In these cases, the software must examine the file for a route default response which is identified on the National Directory file. The records contain only the route number and no primary ranges. (See <u>ZIP+4 National Directory Technical Guide</u>, September 1986, Section III, page 3.7.)

The three situations are:

- 1. The parsed components contain a route number and a box number and there are no like route records on the National Directory file which have primary ranges in which the box number fits.
- 2. The parsed components contain a route number and box number and there are multiple route records that have primary ranges in which the parsed box number fits. Each of the potential records have a different ZIP+4 Code.
- 3. The parsed components contain a route number only.

B. Post Office Box Matching (Record Type 14)

When a keyword for a post office box is detected, the following policies must be followed to select the most specific ZIP + 4 code:

A specific response can be returned when the parsed post office box number falls within the primary range of a single "14" record on the National Directory file. If there are multiple "14" records that satisfy the request, a response can only be returned when the ZIP + 4 Codes of each potential response are the same.

C. Street Matching (Record Type 10)

When parsing identifies components such as house number, pre-direction, street name, suffix, post-direction, unit designator, unit designator value or apartment building/firm, the street matching policies must be followed to select the most specific ZIP+4 code.

The parsed house number must fall within the primary low and high range of a National Directory record before it can be considered a match. The National Directory record range also has odd and even flags. These must be examined. If the range on the record is even, but the parsed number is odd, it is not a potential response.

The primary street name as parsed must be compared to the primary street name on the National Directory record. A method of evaluating the similarity or "closeness" between two fields of data must be developed. The methods used should consider the following possibilities in the address:

- Incorrect or missing suffixes.
 Standardize all suffixes to official USPS abbreviations before comparing.
- Incorrect, missing or transposed directionals.
 Standardize directionals to the common abbreviations before comparing.
- Misspelled street names.

Phonetic or soundex codes, a system of speech sounds as opposed to precise spelling, should be employed. A possible method of evaluating similarities is to develop a weighting system. The types of compares can be categorized into two areas:

- a. Variable area--primary street name or firm name
- b. Fixed area suffix and directionals

For evaluating the variable areas (primary street name on the inquiry to the primary street name of the National Directory record), consider transpositions and number of like characters.

Example:

The following calculation will generate a number which can be used to measure similarity (weight) or difference (penalty).

Weight =
$$500 * ((C/L1) + (C/L2)) + ((C-TR) / C))$$

Penalty = $20 * ((L1 - C) / L1) + ((L2 - C) / L2) + (TR/C)$

C = Number of matched letters in one name

TR = Number of transpositions

L1 = Length of Name 1

L2 = Length of Name 2

"C" is figured by counting the number of letters which match between the two components (street name from National Directory and the parsed street name). Each letter is one component. The search range is defined as the current letter's position plus or minus "N". "N" is calculated by taking the longest of the two components, divide by 2, truncate to a whole number and subtract 1.

The number of transpositions is calculated by comparing the matched letters in one component to the matched letters in the other component, one set at a time. (The first matched letter in component 1 is compared to the first matched letter in component 2, etc.) The number of differences is divided by 2 to give the number of transpositions.

Component 1: ABCDEFGH Component 2: DBCEFFHAG

In the above sample, N = 3, C = 7 and TR = 2.5.

With the fixed compares, be sure the parsed components are standardized to the guidelines in the <u>ZIP+4 National Directory Technical Guide</u>. Since the components (suffix and directionals) are standardized, a literal comparison can be made between the inquiry and the potential National Directory record.

UNIT DESIGNATOR

Exceptional Designators

Non-Exceptional Designators

Description	Abbreviation	<u>Description</u>	<u>Abbreviation</u>
Basement	BSMT	Apartment	APT
Rear	REAR	Building	BLDG
Side	SIDE	Department	DEPT
Front	FRNT	Floor	FL
Lower	LOWR	Hanger	HNGR
Upper	UPPR	Lot	LOT
Office	OFC	Pier	PIER
Lobby	LBBY	Room	RM
Penthouse	PH	Suite	STE
		Slip	SLIP
		Stop	STOP
		Trailer	TRLR
		Unit	UNIT
		Space	SPC

If a unit designator value is parsed, any "20" record from the National Directory file that contains secondary numbers and has passed the basic address checks should be considered as a possible response. The parsed secondary number must fall within the secondary low and high range of "20" record. If multiple records fit the response, a default code must be returned.

ZIP + 4 UNIT DESIGNATOR RULES

1. Current secondary number logic will not change or be effected as a result of the implementation of the non-exceptional unit designators.

Example		Unit	Seconda	Secondary Range	
NDF	123 MAIN ST	Designator APT	Low 1	High 10	
Input	123 MAIN ST 123 MAIN ST	APT 5 APT 5B	Match Match to default - return APT :		

2. The exceptional unit designators itemized in the table above do not require a secondary number. However, it is acceptable if a secondary number is associated with these unit designators. The appearance of secondary unit designators in the unit designator high low range equates to a blank value and is coded there for internal postal use only.

BSMT, REAR, SIDE, FRNT, LOWR, UPPR, OFC, LBBY, PH

Example:

NDF	123 MAIN ST	BSMT	BSMT	BSMT
	123 MAIN ST	BSMT	1	2

3. If a single response is determined, that is an exact ZIP + 4 match is made to a record on the NDF, the unit designator listed on the NDF must be returned.

Example #1:

NDF Record 1 Input	123 MAIN ST 123 MAIN ST	APT STE	1 5	10 Match to Record 1 Return "APT"
Example #2:				
NDF Record 1 Input	123 MAIN ST 123 MAIN ST	BSMT SIDE	1 10 1	Match to Record 1 Return BSMT 1

4. When a multiple response is determined, that is, a default ZIP + 4 match is made, the unit designator, if valid, on the input record will be returned. If not valid, return the "#".

Example:

NDF	Record 1 Record 2	123 MAIN ST 123 MAIN ST	APT STE	1	10 10
Input	123 MAIN ST		UNIT 5	Match to defa	
	123 MAIN ST		GARAGE 5	Match to defa	ult and
	123 MAIN ST		APT 5	Match to Rec	ord 1
	123 MAIN ST		GARAGE	Match to defa return with no designator	-

5. If the NDF unit designator is blank and the input record has a valid unit designator, (secondary ranges match) it will be returned. Otherwise, return "#".

NDF	123 MAIN ST	BLANK 1	10
Input	123 MAIN ST	GARAGE 1	Return #
	123 MAIN ST	BSMT 1	Return BSMT

6. An input address with an exceptional unit designator without a unit designator value, must match to an NDF record with the same exceptional unit designator.

NDF	123 MAIN ST	BSMT	
Input	123 MAIN ST	SIDE	No Match (Match to default) return approved exceptional unit designator present on input address. If not approved exceptional value delete unit designator.

If a secondary number (apartment, suite, etc.) is not parsed or there are multiple National Directory records that fit the inquiry or there are no National Directory responses for the parsed secondary number, a "20" default record can be selected. A "20" default record is one that has the same address components that were compared, but has no unit designator or unit designator value. If there are multiple "20" default records, select the first one encountered.

If a "20" default record is unavailable, a "10" record (street record) can be returned. This is the least specific response type available. If the record makes it through the basic address checks, this will be a valid response. If there are multiple "10" records with different ZIP+4 codes, no response can be given.

A Postmaster record, record type "22", consists of the word "POSTMASTER" in the primary name. This record contains the ZIP+4 code for the postmaster responsible for the given ZIP Code.

A General Delivery record, record type "26" consists of the words "GENERAL DELIVERY" in the primary name. This record contains the ZIP+4 code for general delivery mail in the given ZIP Code. (See <u>ZIP+4 Technical Guide</u> for explanation of record types.)

If the most specific response is a record type with a range (low and high add-on fields), calculate the add-on code by subtracting the parsed box number from the primary high range, then subtract the difference from the add-on high range. The result is the add-on value for that address. (See <u>ZIP+4 National Directory Technical Guide</u>; September 1986, Section III, Page 3.6.)

IV. Return Data

When using official USPS street suffix abbreviations and by matching the customer record to a National Directory record, the system will provide a standardized and corrected address. An additional by-product will be corrected ZIP+4 code.

APPENDIX D

NCOA NIXIE ELIMINATION REQUIREMENTS



NIXIE ELIMINATION

BACKGROUND AND PROJECT SCOPE

The USPS has determined significant mailer interest in, and need for, a service referred to as the National Change of Address- Nixie Elimination Service.

The system includes the NCOA computer database and matching software service through which mailers can obtain an indication that their customer has moved.

The specific indication that a mailer's customer has moved will be provided through a series of footnotes by matching the mailer's name and address file against the National database of permanent address changes filed during the preceding 48 months. Address change indications will be provided to the mailer for only those names and addresses which, in fact, have a similar matching old name and address on the data base. The degree of similarity will be made known to the mailer by footnoting all reasons why the name and address is not an exact match. All input addresses will be standardized and appended with the correct ZIP+4 code and Delivery Point Code information, when applicable.

GENERAL REQUIREMENTS

- Nixie Elimination Service may be provided to mailers as a stand alone service or in combination with NCOA service.
- All requirements in Sections 5 and 6, General and Specific Requirements of the National Change of Address File (NCOA) Licensee Performance Requirements remain in effect and apply to Nixie Elimination Service.

SPECIFIC REQUIREMENTS

• Licensee must continue to use only the NCOA match logic tested and approved by the US Postal Service. However, every time a match fails because it does not meet an NCOA matching requirement outlined in Appendix B, the customer's record must be footnoted to describe the reasons why it is not an exact match.

Example:

NCOA Record: John Sadler

Individual Move: 2711 Holland Drive

Huntingtown, MD 20639-9708

Input Record: J. Sadler

2711 Holland Drive

Huntingtown, MD 20639-9708

The above match fails since our NCOA matching logic requires both addresses to have the same full first name or no match can be made on an individual move. Footnotes for this particular record would be: B, V, R. (See footnote definitions, "NCOA FOOTNOTES," below)

The licensee must go through the entire record and provide footnotes for <u>all</u> discrepancies if the record is considered similar enough to be a Nixie match. In other words, a licensee may not provide the mailer with a "B" footnote only.

 In situations where weights and penalties and/or phonetic techniques are needed to compare record similarity, the licensee may establish the "threshold" for this comparison.

When the licensee considers (and approved by USPS test) the input record and the NCOA data base record determined to be similar enough to be a nixie match, all discrepancies must be noted and returned to the mailer through footnotes. However, if a licensee determines (and approved by USPS test) that there is no match candidate available for the input record, a footnote of "C" must be returned to the mailer.

It is required that the licensee shall return NCOA nixie codes to the accuracy standards set forth in Section 7.4 of the NCOA licensee performance requirements.

- If a customer requests only Nixie Elimination service, exact NCOA matches are to be returned as an "A," "A1," "A2," "A3," or "A4" footnote only. No new address may be provided.
- If a customer requests combination NCOA/Nixie Elimination service, a new address may be returned for NCOA matches as described in Section 7.1 of the NCOA Licensee Performance Requirements. Under no circumstances may a new address be returned for Nixie matches.
- The move effective date may be returned to the customer on Nixie matches. (CCYYMM)
- Licensee may use only the footnotes and their definitions as described below. The
 footnotes and their definitions must be provided to each customer in hardcopy form
 or on each tape and/or disk output returned to the customer.

NCOA FOOTNOTES

A - NCOA MATCH

The input record matched to a NCOA master file record using the current NCOA rules. A new address could be furnished.

A1 - NCOA MATCH - MIDDLE NAME/INITIAL NOT PRESENT

An NCOA match was made using the current NCOA rules; however, one of the records contains a complete middle name or middle name initial and the other record does not contain a middle name or middle name initial.

A2 - NCOA MATCH - MATCHED FULL MIDDLE NAME TO INITIAL

An NCOA match was made using current NCOA rules; however, one record contains a complete first name and a complete middle name and the other record contains a complete first name and only a middle name initial.

A3 - NCOA MATCH - MATCHED FULL FIRST NAME TO INITIAL

An NCOA match was made using current NCOA rules; however, one record contains a complete first name and a complete middle name and the other record contains a first name initial only with a complete middle name.

A4 - NCOA MATCH - FAMILY MOVE, FIRST/MIDDLE DIFFERENT

An NCOA match was made using current NCOA rules for standard matching; both records contain the same last name; however, the first names or initials and the middle names or initials on the NCOA file and the customer record do not match.

B - POSSIBLE NIXIE MATCH

The input record was similar to an NCOA master file record; however, an NCOA match could not be made because of one or more NCOA rules. Additional footnotes are given to indicate reason(s) an NCOA match could not be made.

C - NO MATCH AVAILABLE

The input record was not similar to an NCOA master file record.

D - HOUSE NUMBER MISSING

The input record is a street record which is missing the house number. NCOA rules require the input house number to be exactly the same as master file record for an NCOA match to occur.

F - SURNAMES DO NOT MATCH

The input surname is phonetically similar to the NCOA master file record. However, the degree of similarity is less than NCOA rules require to identify a match.

G - INDIVIDUAL MOVE, FIRST NAMES DO NOT MATCH

There is an individual move record with the same address and surname on the master file. However, an NCOA match cannot be made because first names do not match.

H - TITLES DO NOT MATCH

An NCOA match was not made for one of the following reasons: 1) Both the input record and the master file record contain a title such as Jr., Sr., I, II, or III and the title is not the same on both files; or 2) a title such as Jr., Sr., I, II, III, etc., appeared on the input record but no title appeared on the master file record; or 3) no title appeared on the input record but a title such as Jr., Sr., I, II, III, etc., appeared on the master file record.

I - FIRM NAMES DO NOT MATCH

The input record was compared to a firm record but a match could not be made.

J - INPUT FILE MISSING FIRST NAME

There is an individual move record with the same or similar address and surname on the master file. However, an NCOA match cannot be made because the input file does not contain a first name or initials.

K - <u>SECONDARY NAME OR INITIAL DOES NOT MATCH</u>

The NCOA master file record is for an individual move and the middle name or initial is not the same on both files.

L - <u>DIFFERENT GENDER</u>

The NCOA master file record is for an individual move. An NCOA match was not made because the two files do not indicate the same gender.

M - INPUT ADDRESS MISSING BOX NUMBER

An NCOA match was not made because the input address is a Rural Route or Highway Contract Route and does not have a box number while the NCOA candidate record does contain a box number, or

The input address is a Rural Route or Highway Contract Route and does have a box number while the NCOA candidate record does not contain a box number, or

The input address is a Rural Route or Highway Contract Route and does not have a box number and the NCOA candidate record does not contain a box number and individual match not made.

N - ADDRESS NOT MATCHED

The input address and the NCOA master file address were compared and because of a difference in pre-directional, or post-directional or suffix, an NCOA match could not be made.

O - STREET NAMES NOT MATCHED

The input address and the NCOA master file address were compared and the street name was not similar enough to make an NCOA match.

P - MULTIPLE RESPONSE, NO MATCH

The NCOA master file contained more than one possible match for the input record; therefore, an NCOA match cannot be made.

Q - UNIT DESIGNATOR VALUES NOT EQUAL

Unit designator value on the input record does not match the unit designator value on the master file record.

R - INDIVIDUAL MOVE

S - FIRM MOVE

T - FAMILY MOVE

U - APARTMENT NUMBER/SECONDARY INFORMATION MISSING

NCOA rules require the input record when compared to the master file record contain the same apartment number if present in either or contain the same secondary information if present in either. An NCOA match was not made for one of the following reasons:

The master file record contains an apartment number and the input record does not, or

The master file record does not contain an apartment number and the input record does, or

The master file record and the input record are missing secondary information and, the address is a highrise and, an individual match cannot be made.

V - FIRST NAME MATCHES FIRST INITIAL, INDIVIDUAL MOVE

An NCOA match could not be made because of name matching rules for an individual move. However, one file contains an initial which matches to the first name on the other file.

W - TRANSPOSITION OF SECONDARY NUMBER

The last two digits in a "string" are transposed. As such, an NCOA match could not be made. For purposes of Nixie matching, this transportation is considered to be equal. Example: 12456 = 12465

X - EXCEPTIONAL UNIT DESIGNATORS WITHOUT UNIT DESIGNATOR VALUE

An NCOA match could not be made because exceptional unit designators without designator values must be equal.

Y - INDIVIDUAL MATCH LOGIC REQUESTED

Individual Match logic was chosen for NCOA processing. A potential match was made to a family move; however, the first/middle names on the input and master file records do not match. The match cannot be accepted.

Z - FAMILY MATCH TO A GENERAL DELIVERY

Moves from General Delivery addresses require the use of Individual Match logic. A potential match was made to a family move from a general delivery address; however, the first/middle names on the input and master file records do not match. The NCOA match cannot be accepted.

STANDARDS OF PERFORMANCE

• The Nixie Elimination System shall take subscriber addresses submitted on tape, disk or as an option telecommunicated, and match this information against the NCOA/National Directory File. (See Appendices B and C, NCOA Licensee Performance Requirements for Specifications). The address matching licensee will parse and standardize all customer input addresses. (See USPS Publication 28, Postal Addressing Standards for standardization description.) The standardized address will be run against the NCOA file and where a Nixie match is found, the customer will be provided with footnotes which describe the similarity of the match.

The output which is returned to the customer will include the following:

- 1. The original address as it was presented.
- 2. The standardized address appended with the correct ZIP+4 code and Delivery Point Code, when applicable.
- 3. The footnoted indication where a Nixie match has been found and all other footnotes indicating the similarity of the match.
- 4. When no Nixie match has been made, return items 1 and 2 with "C" footnote appended to the standardized record (item 2).
- 5. National Deliverability Index (NDI) report on tape or hardcopy.
- Applicants who wish to provide Nixie Elimination Service must so specify in their proposal and indicate specifically how they will meet the requirement. If the applicant (Licensee) at a later date wishes to provide the service, he must notify the National Customer Support Center (NCSC), Memphis, 800-238-3150, of his intention to offer the service. Prior to production, the USPS will test the licensee's Nixie Elimination Service to ensure that matched addresses are being properly made and footnoted. The USPS shall supply a test input address file to each licensee that wants to offer Nixie service to all customers. The results of the applicant's matching output will be compared to the USPS output to determine the applicant's software acceptability.

 Service expectations, advertising requirements, database security and pricing of the Nixie service remain the same as outlined in Section 7 of the NCOA Licensee Performance Requirements.

REPORTS AND ADMINISTRATIVE REQUIREMENTS

During the operational phase, licensees who offer the Nixie Elimination Service shall provide monthly performance reports. The data required for Nixie Elimination Service reporting is included in the NCOA Customer Service Log. See Appendix A. NCOA Record Formats for the appropriate electronic file layout requirements and see Section 8.1 of the NCOA Licensee Performance Requirements for submission requirements.

Licensees may begin Nixie Elimination Service only after successful testing and receipt of written authorization to proceed from the contracting officer.

APPENDIX E

LOCATABLE ADDRESS CONVERSION SYSTEM



LOCATABLE ADDRESS CONVERSION SYSTEM

OVERVIEW

The Locatable Address Conversion System (LACS) concept consolidates address conversion information into a single centralized computer database. The LACS database, built and maintained by USPS will be made available, along with periodic updates, to all NCOA licensees as an optional process. The licensee may in turn offer LACS services to the mailing industry as they currently do NCOA and NCOA Nixie Elimination services.

LACS matching logic, similar to NCOA, was developed by the USPS and provides the same degree of accuracy as NCOA. LACS, unlike NCOA, does not require name matching in every instance. The reason for this is the inherent difference between NCOA and LACS. NCOA provides information about a singular customer who has relocated from point A to point B. LACS, on the other hand, is designed to provide the result of an official address conversion by local authorities when point A or B is now recognized as a different address value than it had prior to the conversion and no customer relocation has occurred. The action that typically requires a conversion process is the installation of a "911" type emergency system by local authorities. In the majority of cases the conversion activity results in a rural type address being changed to a street-type address.

I. General Requirements

- 1. LACS service may be provided to the mailing industry by the LACS licensee in one of two ways:
 - A. As a standalone process for providing address-conversion information by processing a mailer's list against the LACS database utilizing LACS matching logic.
 - B. As a back-end process to NCOA that utilizes LACS matching logic to examine new address information provided from NCOA match logic to determine if address conversion information is available and can be provided via the LACS database.
- 2. The LACS matching licensee will accept from their customers address lists with or without customer name information on both magnetic tape and/or cartridge so as to allow customers to match their lists against the National Directory (ZIP+4)/LACS file.
- 3. The LACS matching licensee will parse and standardize all customer input addresses. All standardized input addresses will be appended with the correct ZIP+4 code, and Delivery Point Code data. The standardized addresses, and names where required, will then be run against the LACS file and when a match is found, address conversion information can be reported.
- 4. The ZIP+4 and standardization process employed with the LACS service shall be in accordance with the requirements put forth in Appendix C of the NCOA Licensee Performance Requirements.

- 5. If a customer requests only LACS matching service in the standalone mode, the output which is returned to the customer shall include the following:
 - A. The original address as it was presented.
 - B. The standardized original address with correct ZIP+4 code and Delivery Point Code information.
 - C. The address conversion information when a LACS match has been made with a correct ZIP+4 code and Delivery Point Code information.
 - D. When no LACS match is attained, only A and B above shall be returned as well as the NDI report for the address list as described in Section 8.1 of the NCOA Licensee Performance Requirements. (Optional hardcopy)
 - E. The type of record matched to on LACS file (i.e. 2, 3, 5, 7, or 8).
- 6. If LACS service is provided as an adjunct back-end process in combination with NCOA processing, then the output returned to the customer shall be as stated in Section 7.1 of the NCOA Licensee Performance Requirements with the additions of items C and E above.
- 7. Optional Output For Either LACS Process
 - A. The conversion effective date (CCYYMM) may be returned when a match is made.
 - B. The carrier-route information for the converted address may be returned.
- 8. All requirements in Sections 5 and 6, General and Specific Requirements, of the NCOA Licensee Performance Requirements, remain in effect for NCOA processing and are not affected by back-end LACS processing in any manner.
- The initial size of the LACS database is anticipated to be approximately 400,000 records at 245 bytes per record. Projections of a fully mature LACS database, at this time, are 6-8 million records.
- 10. The LACS database and associated information are subject to the same terms and requirements described in the National Change of Address Licensee Agreement.
- 11. The requirements for LACS advertising and customer support are identical to those in Sections 7.7 through 7.9 of the NCOA Licensee Performance Requirements.
- 12. The security requirements of the LACS database and mailer's files are identical to those in Section 7.12 of the NCOA Licensee Performance Requirements.
- 13. LACS licensees shall receive full-replacement files from the USPS on a monthly basis. Upon receipt, the new version of the LACS database must be operational within 3 business days. The USPS reserves the right to alter the update process for LACS to a transactional mode at a later date if warranted.
- 14. When a LACS full-replacement file is made operational, all previous versions in the licensee's possession must be destroyed.
- 15. LACS matching software must adhere to specific USPS directions regarding the offering of this service as well as to the following matching rules and specifications listed under the Specific Matching Requirements section of this Appendix. Although each licensee will be allowed to develop his own or modify existing software, the failure to adhere to

- these rules on a consistent basis may cause a licensee to be disqualified from being authorized to provide LACS service.
- 16. Licensees may begin LACS Service only after successful testing by USPS and receipt of written authorization to proceed from the contracting officer.
- 17. It is required that the licensee shall match to the LACS file to the accuracy standards set forth in Section 7.4 of the NCOA Licensee Performance Requirements.

II. Specific Matching Requirements

The LACS licensee shall use identical name and address matching logic as described in Appendix B of the NCOA Licensee Performance Requirements with the following exception:

Name-matching logic shall be applied only for certain LACS record types as described below. Additionally, when name-matching logic is utilized, it will **only be individual-name-matching logic**. Under no circumstances shall family-match logic be utilized for a LACS file match.

LACS Record Type Number	Description	Type of Match Logic Required
2	Rural with box number to street-type address (split)*	name and address
3	Street to street-type address (split)*	name and address
5	Rural with box to street-type address	address only
7	Street to street-type address	address only
8	Rural with no box number to street-type address	name and address

^{*}Split is defined as a preconversion address where several families or individuals received mail and subsequent to conversion, each entity will now have a unique address.

^{**}This record indicates an address when the customer has not erected a delivery box on the Postal carrier's line of travel and receives mail at a PO Box or General Delivery.

The LACS database record format to be provided to the LACS licensees from the USPS is as follows:

LACS TRANSACTION FORMAT (page 1 of 3)

RECORD	POSITION	FIELD MAME AND DECORIDATION	LENGTH	COROL
FROM 1	TO 14	FIELD NAME AND DESCRIPTION LACS VENDOR KEY	LENGTH 14	9(14)
		NUMERIC, COMPOSED OF THE FOLLOWING THREE FIELDS:		
1	5	OLD ADDRESS 5-DIGIT ZIP	5	9(5)
6	7	RECORD TYPE '02' RR/HC W/BOX TO STREET-TYPE - SPLIT '03' STREET-TYPE TO STREET-TYPE - SPLIT '05' RR/HC W/BOX TO STREET-TYPE '07' STREET-TYPE TO STREET-TYPE '08' RR/HC W/O BOX TO STREET-TYPE	2	9(2)
8	14	SEQUENCE NUMBER NUMERIC	7	9(7)
15	16	FILLER	2	X(2)
17	17	TRANSACTION CODE A (ADD), C (CHANGE), D (DELETE) APLHA	1	X(1)
18	18	ADDRESS-ENTITY TYPE B (BUSINESS), R (RESIDENTIAL) ALPHA	1	X(1)
19	20	FILLER	2	X(2)
21	24	CONVERSION EFFECTIVE DATE (YYMM) NUMERIC	4	9(4)
25	64	BUSINESS NAME ALPHANUMERIC, IF THE RECORD IS DENOTED AS A BUSINESS, THEN THIS ENTIRE FIELD WILL CONTAIN NAME OF THE BUSINESS.	40	X(40)
		NOTE: A business name occupies the same position as the two following fields and the first five positions of the middle name field.		
25	44	LAST NAME ALPHANUMERIC	20	X(20)
45	59	FIRST NAME ALPHANUMERIC	15	X(15)
60	74	MIDDLE NAME OR INITIAL ALPHANUMERIC	15	X(15)
75	80	PREFIX TITLE ALPHANUMERIC (MR, MRS, DR, ETC.)	6	X(6)
81	86	SUFFIX TITLE ALPHANUMERIC (JR, SR, MD, ETC.)	6	X(6)

LACS TRANSACTION FORMAT (page 2 of 3)

RECORD FROM	POSITION TO	FIELD NAME AND DESCRIPTION	LENGTH	COBOL
87	96	OLD ADDRESS PRIMARY NUMBER ALPHANUMERIC, STREET NUMBER, PO BOX NUMBER, RR BOX NUMBER, HC BOX NUMBER. ZERO FILLED FOR NO BOX OR STREET NUMBERS. '0000000123' '000012 1/2'	10	X(10)
97	98	OLD ADDRESS PRE-DIRECTION ALPHANUMERIC (N, S, E, W, NE, NW, SE, SW)	2	X(2)
99	126	OLD ADDRESS PRIMARY NAME ALPHANUMERIC CONTAINS STREET NAME OR THE FOLLOWING LITERALS:HC XX, RR XX, (XX = ROUTE NUMBER),	28	X(28)
127	130	OLD ADDRESS SUFFIX ALPHANUMERIC (ST, BLVD, RD, AVE)	4	X(4)
131	132	OLD ADDRESS POST DIRECTION ALPHANUMERIC (N, S, E, W, NE, NW, SE, SW)	2	X(2)
133	136	OLD ADDRESS UNIT DESIGNATOR ALPHANUMERIC (APT, STE, FL, RM, #, ETC.)		X(4)
137	144	OLD ADDRESS UNIT DESIGNATOR VALUE APLHANUMERIC,LEFT JUSTIFIED	8	X(8)
145	148	OLD ADDRESS PLUS-4-CODE NUMERIC, LAST 4 DIGITS OF THE NINE DIGIT ZIP CODE. THE FIRST FIVE ARE LOCATED AT THE BEGINNING OF THE RECORD. BLANKS IF NOT SUCCESSFULLY MATCHED.	4	9(4)
149	149	OLD ADDRESS TYPE ALPHA. R (RR), X (RR W/BOX), H (HC), V (HC W/BOX) BLANK (STREET)	1	X(1)
150	159	NEW ADDRESS PRIMARY NUMBER ALPHANUMERIC, STREET NUMBER, PO BOX NUMBER, RR BOX NUMBER, HC BOX NUMBER. ZERO FILLED FOR NO BOX OR STREET NUMBERS. '000000123' '000012 1/2'	10	X(10)
160	161	NEW ADDRESS PRE-DIRECTION ALPHANUMERIC (N, S, E, W, NE, NW, SE, SW)	2	X(2)
162	189	NEW ADDRESS PRIMARY NAME ALPHANUMERIC CONTAINS STREET NAME OR THE FOLLOWING LITERALS:HC XX, RR XX, (XX = ROUTE NUMBER),	28	X(28)
190	193	NEW ADDRESS SUFFIX ALPHANUMERIC (ST, BLVD, RD, AVE)	4	X(4)

LACS TRANSACTION FORMAT (page 3 of 3)

RECORD FROM	POSITION TO	FIELD NAME AND DESCRIPTION	LENGTH	COBOL
FROW	10	FIELD NAME AND DESCRIPTION	LLNGIII	COBOL
194	195	NEW ADDRESS POST-DIRECTION ALPHANUMERIC (N, S, E, W, NE, NW, SE, SW)	2	X(2)
196	199	NEW ADDRESS UNIT DESIGNATOR ALPHANUMERIC (APT, STE, FL, RM, #, BSMT, ETC.)	4	X(4)
200	207	NEW ADDRESS UNIT-DESIGNATOR VALUE ALPHANUMERIC, LEFT JUSTIFIED '111000' '17A' '672'	8	X(8)
208	220	NEW ADDRESS CITY ALPHANUMERIC	13	X(13)
221	222	NEW ADDRESS STATE ALPHANUMERIC	2	X(2)
223	231	NEW ADDRESS ZIP + 4 CODE NUMERIC NINE-DIGIT ZIP CODE	9	9(9)
232	234	FILLER	3	X(3)
235	235	NEW ADDRESS TYPE ALPHA R(RR), X(RR W/BOX), H (HC), V (HC W/BOX), BLANK (STREET)	1	X(1)
236	239	NEW ADDRESS CARRIER ROUTE	4	X(4)
240	245	FOR FUTURE USE	6	X(6)

		LACS HEADER RECORD		
RECORD FROM	POSITION TO	FIELD NAME AND DESCRIPTION	LENGTH	COBOL
1	14	FILLER THE INITIAL 14 BYTES ARE ZERO FILLED ON THE VENDOR TRAN HEADER.	14	9(14)
15	15	TRANS CODE THE LITERAL "H" DENOTES HEADER RECORD.	1	X(1)
16	21	RELEASE DATE NUMERIC, FORMAT YYMMDD	6	9(6)
22	24	RELEASE NUMBER NUMERIC, THE THREE DIGIT RELEASE NUMBER CORRESPONDING TO THE FILE.	3	9(3)
25	33	TOTAL VENDOR RECORDS NUMERIC, THE TOTAL NUMBER OF RECORDS EXCLUDING THE HEADER RECORD.	9	9(9)
34	42	TOTAL ADD RECORDS NUMERIC.	9	9(9)
43	51	TOTAL CHANGE RECORDS NUMERIC.	9	9(9)
52	60	TOTAL DELETE RECORDS NUMERIC.	9	9(9)
61	245	FILLER	185	X(185)

III. Standards of Performance

- 1. Service standards for LACS customer file processing are identical to those in Section 7.2 and 7.3 of the NCOA Licensee Performance Requirements.
- 2. The licensee shall provide designated USPS personnel with the necessary equipment and/or reports to monitor performance at the LACS system facility.
- 3. Applicants who wish to provide LACS service must so specify in their proposal and indicate specifically how they will meet the requirement. If the applicant (licensee) at a later date wishes to provide the service, he or she must notify the National Customer Support Center (NCSC), Memphis at 800-238-3150, NCOA/LACS operations support of his intention to offer the service. Prior to any LACS production by the licensee, the USPS will test the licensee LACS service to ensure that matches to the LACS file and returns to the customer are executed properly.
- 4. The USPS shall provide a test input-address file and mini-LACS masterfile to each licensee that wishes to be evaluated for LACS service when the licensee is ready for formal testing. The results of the applicant's matching output will be compared to the USPS output to determine the applicant's software acceptability.

IV. Reports and Administration Requirements

During the operational phase, licensees who offer the LACS Service shall provide monthly performance reports. The reports will be maintained and made available for Postal Service review for a period of 5 years at the Licensee's facility. See Appendix A. NCOA Record Formats for the electronic report file layouts. See Section 8.6 of the NCOA Licensee Performance Requirements for submission requirements. Performance reports include:

- Customer Service Log record of all files/lists processed through the LACS service and the resultant statistics. Service log information must be kept in sequential order by date. This report will begin on the first of the month and terminate after the last day of the month and must be submitted within one week of the end of the month to the National Customer Support Center, Memphis, TN.
- 2. Update Statistics report of master file content following a file replacement update. Licensees will apply all updates presented to them by the Postal Service within three business days of receipt. All Licensees must maintain the LACS master file consistent with the Postal Service in regard to the number and record type make up of master records. This report must be submitted to the National Customer Support Center within two business days of the completion of the update process.

APPENDIX F

DELIVERY POINT VALIDATION



DELIVERY POINT VALIDATION

The United States Postal Service (USPS) has developed a new technology product that will help mailers validate the accuracy of their address information, right down to the physical delivery point. Mailers will be able to identify individual addresses within a mailing list that are potentially undeliverable-as-addressed due to an addressing deficiency. This new technology is called the Delivery Point Validation (DPV) Product and is made available under license from the USPS.

Although DPV can validate the accuracy of an existing address, it cannot be used to create address lists. The DPV Product is a secure dataset of the 145+ million USPS-delivered addresses; it does not contain addresses that are not delivered by the USPS. Instead of the clear-text data format found in the DSF data, DPV data is in a binary data format that is unintelligible to the reader. There is no text data embedded in the DPV data. Only by presenting an address and processing it using the specific logic defined by the USPS can the user obtain any useful information. The information returned from a DPV inquiry is limited to a "YES/NO" interpretation. This is why DPV is not an address list; it cannot by itself be used to produce a listing of addresses.

1.0 GENERAL REQUIREMENTS

- 1.1 DPV will be required by the NCOA licensees as an adjunct process in combination with the ZIP+4 coding and NCOA processing.
- 1.2 To initiate and track the NCOA/DPV interface, a modified Certification process will be used.

If the NCOA licensee is certified for DPV, DSF or DSF² processing, the licensee may use these processing methods to satisfy the NCOA/DPV requirement.

If the NCOA licensee does not hold a certification for DPV, DSF or DSF² processing, the licensee can choose from the following options:

- a. Select a vendor with a DPV-enabled ZIP+4 engine.
- b. Write a proprietary interface for NCOA-DPV only. To exercise this option, the following will apply:
 - 1. Request, in writing, the Interface Developer Guide.
 - 2. Develop or outsource development of DPV interface in accordance with the DPV Product License, DPV Licensee Performance Requirements, and the Interface Developer Guide.
 - 3. Request a Stage II CASS/DPV certification test when DPV Interface is completed.

2.0 SPECIFIC REQUIREMENTS

- 2.1 Although only NCOA licensees under 1.2.b above will be issued a specific separate DPV license, except for the following, all licensees shall be bound by the restrictions and requirements of that license (obtain the most current copy at http://ribbs.usps.gov/files/dpv):
 - a. Section 2.1, Sole Purpose and Scope, of the DPV License Agreement The NCOA/DPV interface will <u>not</u> be allowed to be "...incorporated into one or more products to be marketed by Licensee in its own name to mailers and subsequent software integrators in their own name...". The NCOA/DPV interface is not authorized to be sub-licensed or repackaged/resold from the NCOA licensee to any other vendor for DPV processing (unless independently licensed as a DPV licensee).
 - b. Section 3.1, Grant of Rights, of the DPV License Agreement –: NCOA licensees may develop their own interface or outsource to have it written. They do not have to be "... a Coding Accuracy Support System (CASS)-certified software developer...".
- 2.2 For NCOA licensees choosing option 1.2.b to write a proprietary NCOA-DPV only interface, the following exceptions are also permitted:
 - Section 6.1, Payments, of the DPV License Agreement Licensee will not be required to pay the DPV license fee for an interface used solely to fulfill the NCOA/DPV requirement.
 - b. Section 4.2, Specific Requirements, of the DPV Licensee Performance Requirements Licensee will not need to create a "one time only, restart code" since the product will be utilized in-house.
 - c. Section 4.3, Specific Requirements, of the DPV Licensee Performance Requirements Licensee will not be required to encapsulate or encrypt the DPV-integrated product since it cannot be resold or remarketed and must be used inhouse.

3.0 STANDARDS OF PERFORMANCE

- 1.1 NCOA licensees must conform to the latest published version of the DPV Licensee Performance Requirements (current version attached). Any changes will be published at http://ribbs.usps.gov/files/dpv.
- 1.2 NCOA licensees will process DPV only as a part of NCOA processing. Processing of address lists solely for DPV only is not authorized. If a DPV enabled CASS-certified ZIP+4 product is obtained independently then the use of the CASS/DPV product is allowed as part of the NCOA process as well as outside the NCOA process.
- 1.3 NCOA licensees will complete a DPV Process for all address lists presented for NCOA processing whether or not the customer wishes to have the DPV footnote information.

- 1.4 NCOA licensees will provide DPV footnote information in accordance with the DPV Licensee Performance Requirements as requested by the customer.
- 1.5 NCOA/DPV interface will be tested with a CASS/DPV in accordance with the DPV license.
- 1.6 The software used by NCOA licensees for NCOA processing will not be required to terminate DPV processing when a False Positive address is encountered on a mailer's file. In this instance, the list can be processed to completion but may not be released to the mailer until authorization to do so is received from the National Customer Support Center.
- 1.7 The licensee is required to collect all addresses matched to False Positives and submit the addresses to the NCSC via email in the format provided below, along with the mailer's name, the total number of addresses processed and number of addresses matched. This information will be analyzed to determine whether the processed list can be returned to the mailer.

DPV FALSE POSITIVE HEADER RECORD

				Field	Field
Ref #	Field	Size	Example	Begin	End
1	Mailer's Company Name	Pic x (40)	ABC Company Inc	1	40
2	Mailer's Address Line	Pic x (58)	123 Main St	41	98
3	Mailer's City Name	Pic x (28)	Memphis	99	126
4	Mailer's State Name	Pic x (02)	TN	127	128
5	Mailer's 9 Digit ZIP	Pic x (09)	381880001	129	137
6	Total Records Processed	Pic 9 (09)	123456789	138	146
7	Total Records DPV Matched	Pic 9 (09)	123333333	147	155

DPV FALSE POSITIVE DETAIL RECORD

Ref#	Field	Size	Example	Field Begin	Field End
	Street Pre-Directional	Pic x (02)	NW	1	2
2	Street Name	Pic x (28)	Cedar Grove	3	30
3	Street Suffix Abbr.	Pic x (04)	Pkwy	31	34
4	Street Post-Directional	Pic x (02)	SE	35	36
5	Address Primary Number	Pic x (10)	1234567890	37	46
6	Address Secondary Abbr.	Pic x (04)	Unit	47	50
7	Address Secondary Number	Pic x (08)	12345678	51	58
8	Matched ZIP Code	Pic 9 (05)	12345	59	63
9	Matched Plus 4	Pic 9 (04)	1234	64	67
10	Filler	Pic x (88)		68	155

Reference numbers 1 through 7 are from the input address.

Reference numbers 8 through 9 are from the matched records.

4.0 REPORTS AND ADMINISTRATIVE REQUIREMENTS

4.1 NCOA licensees will provide USPS with a monthly electronic statistics report in accordance with the following.

NCOA/DPV STATISTICS REPORT

RECORD	POSITION			
FROM	ТО	FIELD NAME and DESCRIPTION	LENGTH	COBOL
	**	EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FII	LLED **	
1	40	DPV Licensee Name	40	X(40)
41	44	Filler	4	X(4)
45	52	Report Date - Format CCYYMMDD	8	9(8)
53	60	Date File Received – Format CCYYMMDD	8	9(8)
61	68	Date File Processed – Format CCYYMMDD	8	9(8)
69	78	Filler	10	X(10)
79	79	Filler	1	X(1)
80	119	Customer Name	40	X(40)
120	131	Customer Tax Identification Number (TIN)	12	X(12)
132	138	Customer Standard Industry Code (SIC/NAICS)	7	X(7)
139	143	Customer Number	5	X(5)
144	163	Filler	20	X(20)
164	172	Total Records Presented	9	9(9)
173	181	Filler	9	9(9)
182	190	Total ZIP+4 Coded	9	9(9)
191	199	Street (S) records Coded	9	9(9)
200	208	Filler	9	9(9)
209	217	High Rise (H) records Coded	9	9(9)
218	226	Filler	9	9(9)
227	235	PO Box (P) records Coded	9	9(9)
236	244	Filler	9	9(9)
245	253	RR/HC (R) records Coded	9	9(9)
254	262	Filler	9	9(9)
263	271	Firm (F) records Coded	9	9(9)
272	280	General Delivery (G) records Coded	9	9(9)
281	289	Total Records Delivery Point Validated	9	9(9)
290	298	Street (S) records Validated	9	9(9)
299	307	CMRA Presented	9	9(9)
308	316	CMRA Validated	9	9(9)
317	496	Filler	180	9(180)
497	505	High Rise (H) records Validated	9	9(9)
506	514	CMRA Presented	9	9(9)
515	523	CMRA Validated	9	9(9)
524	703	Filler	180	9(180)
704	712	PO Box (P) records Validated	9	9(9)
713	756	Filler	44	9(44)
757	765	RR/HC (R) records Validated	9	9(9)
766	774	CMRA Presented	9	9(9)
775	783	CMRA Validated	9	9(9)
784	963	Filler	180	9(180)

NCOA/DPV STATISTICS REPORT

RECORD	POSITION			
FROM	TO	FIELD NAME and DESCRIPTION	LENGTH	COBOL
	**	EXCEPT WHERE INDICATED, FIELDS ARE LEFT JUSTIFIED, SPACE FILL	ED **	
964	972	Firm (F) records Validated	9	9(9)
973	981	CMRA Presented	9	9(9)
982	990	CMRA Validated	9	9(9)
991	1170	Filler	180	9(180)
1171	1179	General Delivery (G) Validated	9	9(9)
1180	1187	Filler	8	X(8)
1188	1196	Total Primary Number Error	9	9(9)
1197	1205	Street (S) records Primary Number Error	9	9(9)
1206	1214	High Rise (H) records Primary Number Error	9	9(9)
1215	1223	PO Box (P) records Primary Number Error	9	9(9)
1224	1232	RR/HC (R) records Primary Number Error	9	9(9)
1233	1241	Firm (F) records Primary Number Error	9	9(9)
1242	1250	Total Secondary Number Error	9	9(9)
1251	1259	Street (S) records Secondary Number Error	9	9(9)
1260	1268	High Rise (H) records Secondary Number Error	9	9(9)
1269	1277	Firm (F) records Secondary Number Error	9	9(9)
1278	1310	Filler	33	X(33)

Note: All numeric fields are right justified, zero filled.

This file shall be submitted in standard ASCII text format. The file shall be named using "D," the 3-character code assigned by the NCSC with the month, year and an extension of DAT. (e.g. DNAA1297.DAT) Note:

